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EDITORIAL NOTES

WARNING!
New Law; Heavy Penalties!

The Harrison Bill regulating the sale of habit-forming drugs was passed by the last Congress and becomes a law of the United States on March 1st, 1915. This is a Federal law and affects every person in the United States who has occasion to buy, sell, dispense, give away, use or have in his possession any of the habit-forming derivatives of opium or cocoa. Every physician in practice makes use of such drugs more or less often; after March 1st he cannot do so lawfully unless he has taken out the Government license to be had by application to the Collector of Internal Revenue of the district in which he lives. The penalties for violation of this law are heavy fine or imprisonment or both. And the law applies to you; to every physician in the United States; do not forget that! Do not think there is any way of avoiding it or that it does not apply to you personally. You must comply with it or get into trouble. The license fee is small—only $1.00 per year—but it must be taken out each year and the fact that you hold a license must be of record in the Collector's office.

Why were we not advised of this before? The good Lord, in His inscrutable wisdom, only knows the vagaries and stupidities of some of our high-priced Federal department chiefs. Doubtless some fat-head chief in some office having the administration of this law in charge, assumed that all physicians, pharmacists, dentists, etc., were natural-born mindreaders. When the mails are to be weighed for fixing railroad mail contracts, tons of seeds, agricultural reports, etc., are sent free of postage. When something important like this comes along, our poor, starving Government cannot afford to send a circular letter of information to the professional gentlemen most interested.

A large number of preparations commonly prescribed contain some one or more of these derivatives and they cannot be dispensed except in the way provided in this law. The list made up by one manufacturing house fills some six or eight closely printed pages. Obviously, there will be more or less friction for some months to come, for unless you have your Federal license, the druggist cannot fill your prescription for a cough mixture or similar preparation that may contain a small amount of one of these drugs, without subjecting himself to the possible penalties of the law.

Be on the safe side; take out your license before March 1st.

Apply to Collector of Internal Revenue—district in which you live.

DUES! DUES! DUES!

Be sure to pay your dues to your county medical society *before* March 1st. It is a very important matter and no longer a mere trivial detail. To administer the business attached to the legal department of the State Society and to safeguard the rights of over 2,500 individual physicians who are members, is no small thing and it must be done on a business basis. For this reason the House of Delegates, and the Council under them and carrying out the instructions of the House, have made certain definite rules for the conduct of the work and the conduct of the members. One of these rules is that all dues must be paid before March 1st or the medical defense provided by the State Society is lost from the 1st of January to such time as the amount is paid. All memberships terminate automatically on December 31st, but all who were members at that time are carried as such up to noon of March 1st, at which time they are automatically stricken from the roster as from the 1st of January. The $6.00 assessment is a very small matter in comparison with the hundreds, and in some cases thousands of dollars which it costs to defend a suit for alleged malpractice. And you never can tell whether or when you will be sued. In nearly every case of such suit, the doctor writes or says: "I had no idea of this! I never was sued before!" There always has to be a first time for anything and you never can tell whether the lightning will strike you next, or someone else. If your dues are paid to your county secretary before March 1st, and you have a receipt or a cancelled check to show for it, you need not worry about the rest; you will be protected. But remember, in all fracture cases, take an X-ray *plate* of the broken bone or bones and keep the plate; do not give it to the patient to keep as a souvenir! Be sure your dues are paid!

"RECIPROCITY" AGAIN.

The following letter has been received from the Secretary of the State Board of Medical Examiners, and is more or less self-explanatory. In presenting this letter, and in discussing its statements, let it be well understood that this JOURNAL has no quarrel with the board as a board nor with the members thereof as individuals. Probably, they are trying to do the best they can with the crazy-quilt document called the Medical Practice Act, but we have ample evidence in the office of the State Society that a considerable number of queer things have happened in the way of licenses to applicants who had previously been rejected.

Here follows Dr. Pinkham's letter:

Sacramento, Cal., January 7th, 1915.

Editor California State Journal of Medicine,
Butler Building, City.

Dear Doctor:—

On page 3 at the top of column one, there appears in the January issue of the California Journal of Medicine an article headed "one-sided reciprocity" which is not a clear statement of facts relative to the reciprocity feature in the present Medical Practice Act.

This office stated in the bulletin issued in October, 1914, a copy of which was mailed to every physician registered in the State of California whose address was known, that twenty-three states now accepted California licentiates under certain conditions, and since that date, two additional states have acknowledged their willingness to grant reciprocity as above stated.

This office trusts that the matter may be corrected in the next issue of the Journal, in order that the medical profession of the State of California may not be incorrectly advised relative to the operation of the present law.

Thanking you for your attention to this matter, I am,

Respectfully yours,

C. B. Pinkham,
Secretary.

In the first place, there is no real "reciprocity"; if memory serves, the word occurs only once in the law and then, apparently, inadvertently. Moreover, the law expressly provides that this state shall not enter into any contract in regard to standards or requirements, with any other state. Why was this put in? Could it have been to keep standards as low as possible? Now let us refer to the document mentioned by Dr. Pinkham, the *Quarterly Bulletin* of the Board of Medical Examiners. At page 18 we find the only matter relative to "reciprocity" as follows:

"The following state boards have replied to communication relative to reciprocity, stating conditions under which applicants of California licentiates would be accepted:"

Then follows a tabulated list of the states from which we learn that 23 were "Favorable" (whatever that may really mean), "Definite reply deferred until board meets, 8; Will not accept California certificate, 12; Only accept provided a signed contract is executed, 4; No replies received, 3." As there can be no signed contract, we may say that 16 states flatly refuse to play with us and 3 will not even condescend to answer the letter sent to them. What are the terms and conditions under which these 23 "favorable" states will accept our applicants? The *Bulletin* nowhere states nor can they be ascertained as one is told that each case is considered on its own merits! Furthermore, it is interesting to note that Arizona is one of the states that is in the refused column; but our board has licensed without examination, on the "reciprocity" basis, over twenty Arizona licentiates, some of them having obtained the Arizona license solely for the purpose of registration in California without examination. Assuredly the designation "One-sided reciprocity" seems to be not at all inadequate, in view of the facts. Up to the present time, so far as we can ascertain, no applicant with a California license has been licensed by this so-called "reciprocity" in any other state or territory. The dictionary nearest at hand gives the following definition of "reciprocity": "Mutual or interchangeable action; Equality of commercial privileges."

LEGISLATION.

It is impossible to guess, at the time of writing, what will come out of the law factory now working at Sacramento. As the governor omitted from his message any request in regard to medical matters, there was not the flood of medical bills that was so remarkable a feature of the last legislature. The drugless practitioners were active in Sacramento in December and of course they want a special board of examiners and have innumerable blow-holes and jokers in their proposed measure. It is doubtful, however, that either the legislature or the governor will look favorably upon any new boards of examiners. The attorney for the board has prepared, and the secretary of the board has sent out, a list of amendments to the present act which have been suggested; the attorney specifically states that he does not approve all of them, and this is gratifying, for some of them are absurd and some are vicious. About the worst of the lot is a proposed amendment extending license without examination—the so-called "reciprocity"—to holders of a license to practice any form or method of treating the sick or afflicted; in other words, to let in a large number of osteopaths, chiropractors, etc.; the drugless horde. Another is the inclusion of chiropodists, their examination and license by the State Board of Medical Examiners! Another provides a monthly license fee of $100.00 for itinerant practitioners of any cult. Another makes six instead of seven votes necessary to pass any measure, which is bad, for there cannot be too much protection. Of course there is to be a decrease in the minimum requirements, but this is of minor significance as a given number of required hours printed

on a piece of paper does not make a medical school or mean much of anything. The recommendation in regard to license without examination of all classes—drugless healers—the so-called "reciprocity," is made in the face of a decision of the Appellate court sustaining the constitutionality of the "reciprocity" feature of the law as it is. It is proposed to move the office from Sacramento to San Francisco; it was absurd to put it in Sacramento at all. It is also proposed to make many minor changes to make the act correspond with the major ones. It will be interesting to see what sort of a jumble will come out of the mill.

MR. KAUFMAN.

Our chief counsel, Mr. Walter W. Kaufman, has turned in a very exhaustive report of the last year's work in our Medical Defense. It is too comprehensive to publish in full but a digest of it, and of Mr. Morrow's report, will appear later. In the meantime it is a pleasure to record the fact that Mr. Kaufman has so carefully and so successfully guided our legal work and to thank him for his untiring efforts.

MEDICAL DEFENSE RESULTS.

In the annual report of our attorney for Southern California, Mr. H. T. Morrow, who has handled our work from the first with remarkable sagacity and ability, and to whom we are glad thus publicly to extend our thanks, there are one or two paragraphs of general interest.

"The Society has been especially fortunate this year in having several cases which would have been expensive to try, disposed of without trial. While the trial work this year has been extremely light, I anticipate that next year will not show any extraordinary increase in suits filed or cases tried. The advice which has been given by the Secretary of the State Medical Society from time to time with regard to the advisability of taking X-rays in all fracture cases, and elsewhere when necessary, has directly resulted in a large saving to the Society, for I have found in several cases under investigation this year, that the fact that the member in question had expressly adopted the suggestion of the Society and had excellent X-ray plates, resulted in certain malpractice matters in question being dropped without suit."

BOUND TO PUBLISH IT.

After the outbreak of the great war now raging in Europe medical periodicals failed to arrive from abroad for a while. It was at first a question whether their publication had been suspended or whether obstacles to transportation prevented their arrival. In the course of time those who had enjoyed the respite from the obligation of keeping up with the age by reading the facts and fancies communicated in the journals sighed to discover that there had been only a damming up of the current and that even a total lack of readers would probably not suspend the animation of writers. And railways might be blocked and ships desert the sea, but until the very air evaporates and space itself is obliterated a determined contributor will find a way to get to his editor.

As witnesseth Doctor Ernest Jeger. He is rendering surgical aid to the forces occupying the fortress of Przemysl. Przemysl has been besieged by the Russians for several months. They have effectively blocked egress for the ordinary human body which is content, or forced, to remain in contact with the earth. But Dr. Jeger had a message for mankind on the subject of Sutures of Blood Vessels. His soaring spirit would not be baffled and, finding one who soared in body as well as in mind, to him he confided the MS, composed amidst the carnage, and directed it to the editor of a medical journal in Berlin. So by means of the aeroplane a paper on "Military Surgical Experiences on Suturing of Blood Vessels" got beyond the confines of the beleaguered fortress and reached its destination.

The editor of the Berliner Klinische Wochenschrift was evidently touched by the resolution which overcame such difficulty on the path to his columns and he yearned to equal his contributor's prowess by sending back the proofs by the aerial route. But he ruefully confessed that the aeroplane department maintained for the convenience of the editorial staff was not in working order, so that the winged words from Przemysl had to be printed without the author's revision.

Let all editors learn from this that when a medical chiel is takin' notes, faith he *will* print 'em.

DRUGGIST CO-OPERATION.

In a recent issue of the JOURNAL, we published a letter from Dr. Philip King Brown referring to the druggist situation and the relations of physician and druggist, that contained much good food for thought. The December number of the *Drug Clerk's Journal* reprints this, without comment, but in another portion of the same issue has an article entitled "Can the Pharmacist Prescribe?" which is merely silly and does not in any way discuss the question brought up. There should be more co-operation between physician and pharmacist and there should be some common ground on which both may meet and each be a help to the other; but we will never find it in the way pursued by the *Drug Clerk's Journal.*

REMARKS TO LEGISLATORS.

As is well known to those who have for any length of time watched the various legislatures of the State of California, the Southern California Delegation is a very important and influential element. They always meet in Los Angeles in December and listen to requests, petitions for bills, etc., from whomsoever wishes to appear and be heard by the caucus of the delegation. On December 18th, 1914, a committee of the Los Angeles County Medical Association appeared before the delegation and expressed the views of the medical society on medical legislation. The following remarks, which come from Dr. Francis M. Pottenger, are so sane and so adequate that it is a pleasure to quote them. The JOURNAL is not advised as to whether they have appeared in any other publication:

The members of the medical profession who are licensed to practice medicine and surgery in the State of California believe in high standards of qualifications for their profession, and look upon any attempt to lower the standard as inimical to the best interests of the citizens of the state.

Preliminary to our discussion we desire to call attention to the fact that the two fundamental principles in the treatment of disease are: first, accurate diagnosis, and, second, an efficient therapy. We further wish to emphasize the fact that the prevention of disease, which is the ultimate aim and purpose of medicine, likewise depends upon accurate diagnoses.

The diagnosis and treatment of disease today, on account of the rapid strides which are being made in our science, are demanding more and more preparation on the part of students in order that a satisfactory service may be rendered to those who are sick.

We believe that anyone who attempts to care for the sick, whether it be by medicine, surgery, manipulation, or any other measure, should have a thorough knowledge of the human body and its functions in health and disease, and be able to diagnose the condition which he attempts to treat. To this end we believe in a certain standard of preliminary education for all students of any branch of the healing art, as being not a guarantee, but an indication, that such students shall have the capabilities of grasping the problems which are associated with the diagnosis and treatment of disease. We believe that no such standard should be *lower* than that represented by a high school certificate.

We further believe that it takes as much training to understand the human body and to diagnose and differentiate between similar conditions when treated by so-called drugless methods, as it does when treated by medicine and surgery, and that the plea made by the followers of such methods that, inasmuch as they are not intending to use drugs and surgery they do not require an equal training in the knowledge of the human body and the diagnosis of disease is an admission that they do not appreciate the seriousness of their calling and the responsibility which is imposed upon them

when the health and lives of patients are placed in their hands.

Graduates in Medicine and Surgery are not necessarily drug doctors. They stand ready to use anything that will help to alleviate or cure the sick and anything that will prevent disease. Their knowledge of the human body, their skill in diagnosis, and their judgment of disease prompts them to study and apply so-called nature's remedies, when indicated. Open air, sun baths, various water baths, mechano-therapy, electricity, massage, mental therapeutics are all used by members of the regular profession. Their employment is based on the same knowledge of the human body and the same skill in diagnosis as the employment of drugs and surgery.

As practitioners of medicine and surgery we desire to make our attitude toward practitioners of other modes of healing clear. We are not unalterably opposed, as is so often said, to other modes of healing. We use many of them ourselves. We are, however, unalterably opposed to persons holding themselves out to the public, which is not in a position to discriminate, as practitioners of medicine when, on account of insufficient, or inefficient training, they do not understand the human body, either in health or disease, and are not able to diagnose the disease which they are attempting to treat. If the public demands practitioners of these modes of healing, let it have them; but first, let such practitioners prepare themselves by a sufficiently thorough course in the fundamentals of medicine so that they are capable of giving the services required. Such a knowledge of the human body is desired, such a familiarity with disease and such a skill in diagnosis is demanded that such a disease as appendicitis will not be treated by massage until an abscess forms and ruptures; so that such a lesion as tuberculosis of the joints will not be treated by manipulation, and so that broken bones will not be treated by mental therapy. Let all who desire to practice any form of healing prepare themselves by an efficient preliminary education, likewise a proficient professional training, so that they can make a proper diagnosis and so that they will know when their method is efficacious and when useless or harmful; and then let the layman choose whomsoever he wishes for his medical adviser.

THE RIGHT KIND OF TALK.

Elsewhere in this issue we take pleasure in printing an editorial from the *Fresno Republican* which has the right ring. It is "safe and sane" and the sort of thing that will do good. It is the kind of editorial statement so seldom found in newspapers now, but which made them the guides to public opinion a generation or more ago. If all the papers in the state would take this attitude and slowly but surely educate their readers in the line of the relative value of a "twisted thought" and a malaria infected mosquito, it would not be so many years till we had a pretty clean state and some pretty sane legislation. As usual, the *Fresno Republican* stands for the good of the people of the state and not for any selfish interests of its own.

MEMBERSHIP VS. LICENSE TO PRACTICE.

More and more it is becoming evident that membership in our county units, and therefore membership in the State Society and the American Medical Association which are included with membership in a county unit, must take the place, to a large extent, of the state license to practice medicine and surgery. In the eyes of the ordinary man in the street, one license looks just like another and a license to practice naturopathy or chiropractic or osteopathy seems no different, to him, than a license to practice medicine; the holders of all are alike treating sick people. The people have taken legislation into their own hands and apparently do not wish for any expert advice; it seems useless for us, as a medical organization, to try to tell them or the legislators anything. The spirit of the time is revolt against all control and they seem willing to allow anyone who wants to, to get a license to practice anything he wishes to. How useless would it be for a medical organization to say much when from the Board of Medical Examiners itself come suggestions to license chiropodists under that board and to extend the privilege of so-called "reciprocity" to all sorts of drugless healers who have been licensed in other states? It would be undignified of us even to seriously discuss such utter absurdities and if we officially oppose the recommendation of the board, then the cry goes up that there is a medical fight on and that the "medical trust" feels that its monopoly is being attacked! Truly, the people is a silly people.

SMOOTH SWINDLER; LOOK OUT FOR HIM.

There is a young man, described as about 21 years old, 6 feet tall weighing about 180 pounds, black hair, very dark, large eyes, rather pale, deep falsetto voice, three upper teeth missing (which may have been fixed), who is operating in California taking alleged subscriptions for *Current Opinion* and *The Literary Digest* and offering as a premium to doctors a medical book, and to lawyers a law book. The Periodical Publishers' Association have offered a reward for information that will lead to his arrest. Dr. English, of Stockton, is good enough to advise us of this man's presence and of the further fact that he is indeed a "smooth article," with a good talking knowledge of medical journals and up-to-date medical publications and also has in his possession any number of "credentials." He seems to be doing a good deal of business which is, of course, unauthorized and repudiated by the publications mentioned. This sort of crook is probably as old as the oldest subscription publication and he is always hard to catch. Be on your lookout for him and if he comes your way, notify the police department. In general, never subscribe for anything to an agent unless he is personally known to you, and never pay him any cash; send the money to the home address of the publication. If he is a legitimate agent, he will get his commission just the same and if he is not you will save your money.

ORIGINAL ARTICLES

OPERATIONS IN THE EYE CLINIC OF STANFORD UNIVERSITY.*

By ALBERT B. McKEE, M. D., San Francisco.

The operative material of the Ophthalmological Clinic of Stanford University affords an opportunity for the study of statistics which heretofore has not been utilized, but we hope in future, by maintaining more exact records, to render the material available.

The operative methods have usually been conservative in character, new methods having been tried only when dissatisfaction with old methods or the inherent saneness of the newer method rendered a change advisable. It has been our endeavor to give useful vision to the largest possible number of individuals rather than to introduce any element of hazard by attempting to procure more brilliant results in a few cases with perhaps a larger percentage of failures.

For several years past we have made preliminary iridectomies in all cataract cases when not compelled by circumstances to do the iridectomy at the time of the extraction. It has generally been admitted that this method is advisable when the patient has already suffered the loss of one eye, the inference being that the method is somewhat safer than others. If this be true, it seems illogical to deny to anyone this added element of safety, even though he have two eyes.

According to Dr. Shoemaker, the former editor of the *Annals of Ophthalmology,* this position, taken by one of the speakers at an assemblage of oculists, was so convincing that several converts were made.

The advantages of the operation are that the operator has an opportunity to become acquainted with the behavior of the patient as well as with conditions in the eye itself, tendency to hemorrhage, size of the nucleus, etc.

The slight pain of the iridectomy, which might cause some resistance or pressure on the part of the patient, is comparatively harmless before the removal of the lens; but if, as is sometimes the case, the patient is thereby unnerved, his subsequent behavior becomes a matter of grave concern. Hemorrhage from the iridectomy, which is very embarrassing when removing the lens, will have disappeared before the time for the extraction.

It is usually not difficult to control a patient during the short time occupied by either stage of the operation, but a combined extraction requiring the introduction of several different instruments, and causing repeated efforts at self-control, is much more trying to patient and operator.

In the comparatively small number of cases of combined extraction, the percentage of complications has been considerably higher than in those in which the preliminary iridectomy has been made.

So far as we have been able to discover, there was but one eye lost in 58 operations where preliminary iridectomies had been done, a suppurative choroiditis following a few days after a perfectly smooth extraction being responsible for that loss.

Three eyes were lost after combined extraction, the loss not being directly chargeable to the method, two having been infected upon the same day, owing perhaps to some contact with sources of infection in the sugical ward. One of these patients had already undergone operation upon the other eye with a perfectly successful outcome, but lack of time on the part of the patient compelled us to do the second extraction at the time of performing the iridectomy.

We have had the usual difficulty with secondary opacities and somewhat indifferent success in relieving them by subsequent discissions. The operation of Homer Smith, therefore, appeared worthy of trial but has not been made use of in a sufficient number of cases to demonstrate its true value.

In two patients upon whom this method was tried the cataracts were so mature that it is probable the extraction could quite as readily have been done by the usual methods. In one individual the usual operation was performed upon one eye and the preliminary capsulotomy preceded the operation upon the other eye. Although the cataracts were of the black or sclerotic type, the presence of some apparently clear cortex led to a trial of the capsulotomy. The extraction and the final result were not materially different in the two eyes.

In another patient, however, in whom we expected to find considerable debris, the extraction following capsulotomy was so clean and complete that we believed the operation to have been greatly improved by Smith's procedure. A disaster, the result of too vigorous use of the needle followed by rupture of the zonula and loss of vitreous, cooled our ardor somewhat but the operation is deserving of further trials.

Homer Smith claims especial value for the operation in facilitating the extraction of Morgagnian cataracts, the removal of the lens in high myopia, and the delivery of immature sticky cataracts.

In the few operations done by us, we allowed 24 to 48 hours to elapse between the capsulotomy and the extraction but Smith now advises six hours as sufficient to bring about the desired changes without incurring the danger of rise of tension.

He found no suitable knife in the shops but devised a modification of the Knapp knife-needle which cuts at all the various angles.

The action of the aqueous humor separates the lens fibres from the capsule. If the cortex is gelatinous in consistency, some of the material will protrude from the capsule; if of the Morgagnian type, the fluid mingles with the aqueous.

Notwithstanding the favorable reports from some operators concerning the extraction of the lens in its capsule, and even though a certain amount of vitreous may be lost without serious danger, an eye that is losing vitreous is an endangered eye and we cannot agree with the sentiment that disregards loss of vitreous, hence the intracapsular extraction is not adapted to general use even if it seem to be safe in certain hands, and a procedure

* Read before the Nevada State Medical Association, October 13, 1914.

such as that of Homer Smith is worthy of careful trial.

The Elliott Operation: Iridectomy will probably continue to be the operation of choice in acute glaucoma but it has proven far from satisfactory in the chronic forms of the disease, hence the hearty welcome with which other operative procedures have been received. Of all these newer methods, the Elliott operation finds greatest favor at present. It is comparatively simple to perform and the dangers and difficulties are much less than those of an iridectomy.

Meller reports 300 cases, in which he considered the results satisfactory. The best results were in those cases in which he was able to excise a portion of iris. He reports 20 cases lost through infection and cautions against buttonholing the flap.

Axenfeld thinks so highly of the Elliott operation that he fears that the reporting of these late infections may deter operators from using this method.

Meller has not found the Elliott operation of great value in relieving the symptoms in blind eyes but our somewhat limited experience does not confirm this opinion. For the first operations, eyes were selected which would ordinarily be considered hopeless. In none of these patients did enucleation become necessary and all were freed from pain. One patient, a victim of heart trouble, had a glaucoma that was secondary to an intraocular hemorrhage. Another patient, a young woman who had sustained an injury to the eye many years prior, was suffering greatly from pain, the eyeball was very hard and the corneal epithelium had oxfoliated in large patches. Both retained painless and sightly globes. In the latter case, as the result of persistent attempts to seize the iris, a bead of vitreous protruded; nevertheless, the result was good. One patient, both of whose eyes were operated upon, has 20/30 vision though the sight of one eye had been reduced to recognition of hand movements during an acute attack.

Meller recommends a trephine 1.5 mm. in diameter and advises that a fairly large flap be made. If the iris prolapses or is found free, a peripheral section should be made but it is unsafe to make too vigorous efforts to seize it. The use of atropin for a few days, in order to prevent the formation of adhesions with blocking of the opening, is essential.

One of our patients with double glaucoma had an Elliott operation performed upon one eye and a large peripheral iridectomy upon the other. Although the tension in both eyes has remained low, the vision of the former eye has remained good whilst a small opacity in the lens of the other eye has impaired the vision. Thus far we have been fortunate in having no cases of infection, which may be due to the use of a large thick flap and care in not buttonholing it.

The last operative procedure to which I desire to call attention is the removal of the lachrymal sac. In this operation we follow the technic of Meller. We have endeavored to limit the operation to those cases in whom other and less radical measures have failed.

Simple strictures and dacryocystitis are handled by incising the canaliculus freely and passing the knife down through the nasal duct. Uhthoff reasoned that it was better to submit the patient to an initial operative procedure with subsequent almost painless probing rather than to cause him to undergo the repeated torture of having probes passed through a tight stricture. The method is essentially the same as that pursued in the treatment of urethral strictures. There has seemed to be much less tendency to the recurrence of the stricture after this method than when the membrane is repeatedly irritated by the passing of large probes without incision. Even after the rupture of an abscess, incision of the stricture with gentle probing has resulted in cure, and not infrequently rupture of the sac has been prevented by the internal incision. The removal of the sac has been rendered necessary by failure of the usual methods or because of the inability of the patient to submit to the more prolonged treatment. In no case have we found the subsequent epiphora to be disturbing and in all cases there was complete cessation of discharge, though on several occasions the re-opening of the wound was found necessary by reason of failure to remove all of the mucous membrane at the first attack. The operation is practically painless after the injection of 1 c.c. of novocain containing one part in ten of 1 to 1000 adrenalin. The first portion is injected under the skin, the second deep down along the lachrymal crest, the third portion about the cupola of the sac, and the remaining portion about the nasal duct. It is not necessary to regard the tarsal tendon and the resulting scar is scarcely noticeable. It is quite essential that a firm compress be placed over the region of the sac and that it be not disturbed for several days, the bandage being removed, however, for inspection of the cornea. The operation, though somewhat difficult and tedious to perform, is a valuable addition to our methods of treatment in these cases.

THE SKIN TEST IN TYPHOID.*

F. F. GUNDRUM, M. D., Sacramento.

Several communications have appeared during the past six years concerning a skin test for typhoid. Different observers have used different materials and different methods in making the test and a very considerable difference of opinion exists as regard its usefulness. Wolff-Eisner,[1] did not obtain a characteristic reaction with "Ficker's Diagnosticum." Link,[2] using an old bouillon culture got six positive reactions in nine cases of typhoid. Deehan,[3] upon 12 typhoid patients obtained a rather positive reaction. Floyd and Barker [4] report 19 of 30 typhoids positive with 18 control cases negative. Chauffard and Taussier [5] considered the test of little value; it was also given by controls. Gay and Force [6] used a special "typhoidin" applied just as is tuberculin in the well-known von Pirquet

* Extract from a paper read before the California Northern District Society at Stockton, November 10, 1914.

test to investigate the formation of antibodies after immunization against typhoid with the vaccine of Gay. This "typhoidin" was made as follows: 250 c.c. of 5% glycerin bouillon was inoculated with B. typhosus (Dorset Army Strain No. 5) and incubated for five days. It was then reduced without filtration to one-tenth of its original volume by evaporation. This solution proved negative in 85% of persons who had had no typhoid, and positive in 95% of persons who had recovered from the disease.

In order to compare the skin reaction with the Widal test for agglutinins, all patients suffering from typhoid admitted to the Sacramento County Hospital during the past summer received a skin test at the same time the blood for Widal test was made. At first we used a suspension of dead bacilli, 100 million to 1 c.c., obtained from one of the commercial houses. One-tenth cubic centimeter (0.1 c.c.) of this bacterin was injected intradermally usually leaving a wheal about five or six m.m. in diameter. If a red maculo-papule as large or larger than the original wheal appeared between 6 and 48 hours from the time of injection, we considered the test positive. We tried this suspension of dead bacilli upon eleven patients, six typhoids with positive Widals and five non-typhoids. In no case did a satisfactory reaction develop. Then we substituted Gay's vaccine, a suspension of sensitized and ground up typhoid bacilli of greater bacterial density (750 million to 1 c.c.). Upon thirteen typhoid patients this suspension gave a distinct positive in ten. Ten also gave a positive Widal test, but not the same ten. Of nine malaria patients eight did not give a reaction. Of eight controls none reacted. The results are more easily seen in the accompanying table:

Suspension Typhoid Bacilli (Cutter's):					
Number Tested	11				
Number Typhoid	6	Widal	0	Test	0
Number Malarias	2	Widal	0	Test	0
Number Other Fevers	3	Widal	0	Test	0
Suspension Ground Sensitized Typhoid Bacilli (Gay's):					
Number Tested	30				
Number Typhoid	13	Widal	10	Test	10
Number Malaria	9	Widal	0	Test	0
Number Fever (Undiagnosed)	1	Widal	0	Test	1
Number Mixed Cases	8	Widal	0	Test	0

Thus the suspension of sensitized ground bacilli introduced intradermally gave reactions in as many patients as agglutination was observed in the Widal test, while the ordinary suspension failed to produce a characteristic response. The cause for this does not seem certain. It may have been due to a larger dose. Possibly the grinding of the bacterial bodies allowed a more marked toxin action at the site of injection. Of course this short series is not sufficient evidence upon which to base definite conclusions, but the findings seemed interesting and I have therefore brought it to your attention in the hope that much more data may be available at the end of the next typhoid season.

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THE PREGNANCY TOXAEMIAS—THEIR ETIOLOGY AND TREATMENT.**

By JAMES J. HOGAN, M. D., M. R. C. S., Eng., San Francisco.

The circulation in the blood of a pregnant woman of some, as yet unknown, toxic agent is the more generally accepted cause for the complex symptoms that we find present and while as yet no definite specific agent has been demonstrated we can at least see the effects of this toxemia in the different organs involved.

As any one part of this subject is so extensive I must content myself tonight to touch on the following phases:

First, that the circulation of this unknown toxic agent produces in certain organs, as the kidneys, liver and brain, definite pathological changes similar to those produced by toxic drugs, as chloroform, alcohol, phosphorous, etc. These changes are edema, cloudy swelling, fatty changes, hemorrhages and finally necrosis, in other words, changes that are produced when you interfere with the oxidation chemistry of the tissues. This oxidation chemistry can be interfered with in many ways, as interference with blood supply to an organ, the injection of acids in excess of the amount that can be oxidized and eliminated, and poisoning by certain toxic amines, as pyridin, cadaverine, and putrescence. Urea also in high concentration has the same effect. Recent experimental work has shown that these amines have as great a power in hydrating colloids as acids, and that the swelling so produced cannot be counteracted by the use of bases and salts as in the oedemas produced by acids but is relieved readily by the use of hypertonic sugars.

Secondly, that the signs and symptoms of pregnancy-toxemia to my mind are best explained in the following manner: That the circulation of these poisons produces definite pathological conditions in the organs involved, and the intensity of the symptoms depends on the organ involved and the degree of the intoxication. In the *medulla* you have the nausea and vomiting, *the brain* with drowsiness and convulsions, the *eye background* with dimness and loss of vision, *the liver* with

* Citations after Gay and Force.

** Read before the San Francisco County Medical Society, August, 1914.

beginning edema and terminal necrosis, *the skin and connective tissues* with edema, *the kidney* with its initial edema, diminished urinary secretion, albumin, and casts.

Thirdly, that we have in proper urinary examination early signs of beginning trouble, as shown by an increase of urinary acidity, and a diminution of the excretion of bases and a disturbance between the ratio of ammonia and nitrogen elimination. Along with this you may have present some of the ketone group; acetone and diacetic acid.

Fourthly, reasoning from this we would expect that means applied to reduce our initial edema and favor the elimination of these toxic products would be of benefit as a prophylactic measure, and that in the terminal stages the more energetic application of these principles would be a distinct step forward in the treatment of these cases. Taking these points in their order we must admit that at the present time we are unable to say what the specific poisoning we are dealing with in this case is, we do know that the maternal circulation is being constantly furnished the broken down products of fetal metabolism, and that the symptoms present resemble a protein intoxication, the mother finally, in the majority of cases, develops an immunity to it, and, in a small percentage of cases, is unable to do so. This protein is partly foreign to the mother as it represents the growth of two types, the spermatozoon, and the ovum. The pouring into the maternal circulation of these waste products of foreign protein must have an effect upon all the processes of metabolism in the cells and result in the production of incompletely formed products that interfere with their oxidation chemistry. Why these toxins should most frequently select say the liver or brain could be explained from the fact that these toxins are amides of fatty acids and are more easily soluble in lipoids than in other structures of the body. It may finally be proven that some type of toxin is responsible to initiate the changes in the organs involved. The upsetting of the metabolism in the cells produces these definite pathological conditions, beginning with edema and ending (if not relieved) in necrosis.

The important point that I wish to bring out is that the symptoms of pregnancy-toxemia are not produced simply because the kidney does not excrete these toxins, but by the effect of these toxins on the various organs involved; the involvement of *medulla* producing nausea and vomiting, *brain,* drowsiness and convulsions, *eye background,* dimness and loss of vision, *liver* with its symptoms of acute yellow atrophy, *kidney* with diminished urinary secretion, albumen and casts, *skin and connective tissue* with edema.

If these remarks be true we should expect to find in the urine evidences of an acid intoxication, and the earlier we recognize these changes the more hope we have to deal with a reversible process. It must be plain to us that while we may relieve an edema of an organ the chances of reversing a necrosis are nil. Now what early changes found in the urine would suggest that the oxidation chemistry of our body was being interfered with? We know that it is possible for a woman to die with convulsions and still show no signs of albumen, casts, acetone, diacetic acid, etc., in the urine, so waiting for these changes would be misleading.

I believe from the clinical work I have done in this line that the determination of the acidity, the output of bases (measured in sodium chloride) and the ratio between urea and NH_3 are means that may be used in any office and will give more information than anything else at our disposal today. Any method to be used by the clinician must be fairly accurate and easy of application. The time consuming methods of hydrogen ion concentrations would be out of the question for the general practitioner.

Now let us see the importance of these examinations and their interpretations. In the process of normal metabolism numerous acid products of the breaking down of proteins, fats, and carbohydrates are formed which must be excreted; of these Co_2 leaves the body in large quantities through the lungs, while sulphuric acid, hydrochloric, phosphoric and uric acid, etc., are eliminated by the urine always in combination with bases. If there is an inhibition of the oxidation process of carbohydrate and fat metabolism smaller or larger quantities of the ketone group appear in the urine. As all acids must combine with bases before they can be excreted, nature has protected carnivorous animals against the accumulation of these acid products; the ingestion of bases and salts with our food normally makes up for those used in neutralizing the acids formed. If this ingestion is cut down, or if more acid is formed than be neutralized in this way, as a further protection it is obtained from the body protoplasm where bases are held in chemical combination with this protein, and even if this fails nature has further provided that our protein may break down and form ammonia, but if the production of acid becomes so great that the supply of ammonia fails to neutralize these acids, the normal neutrality of the blood and tissues falls and terminal symptoms of an acid intoxication appear. The determination of urinary acidity may be done by the ordinary titration methods, but a more accurate and more easily applied procedure I find is a set of three indicators which gives you the hydrogen ion concentration by simply dropping a few drops of the indicator into some urine in a test tube or on a sheet of filter paper saturated with urine. These indicators have the following composition and are arranged in this manner:

1 Para nitro phenol	0.2	Alkaline (lemon yellow)
Alcohol	100.0	Acid (colorless)
2 Methyl Red	0.2	Alkaline (yellow)
Alcohol	100.0	Acid (red)
3 Rosolic Acid	0.5	Alkaline (pink)
Dissolve in alcohol	50.0	
Then add distilled water	50.0	Acid (no change)

The urine of a patient at rest should be alka-

line to No. 2 methyl red. If acid to it there is a tenfold increase. If acid to the next indicator above (para nitro phenol) there is a hundredfold increase. Urine is seldom alkaline to rosolic acid unless patients have been treated with alkalines, or have bladder infections, in the latter case a microscopical examination will reveal this. Now the mere increase of acidity is not sufficient to diagnose an acid intoxication; you must next determine if the body is holding back its available bases. This may be done by testing for the excretion of chlorides by Mohrs's method. This method is selected because it is easily applied by the clinician. Into a Erlenmeyer flask place—

10 c.c. urine
100 c.c. Dist. Water
10 drops 10% solution potassium bichromate

Into this from a graduated burette drop by drop the solution of silver nitrate (29.06 gms. to the 1000 c.c.); do this till the yellow color changes to orange. For every c.c. of the silver nitrate solution used multiplied by 0.01 gives the amount of chlorides in 10 c.c. urine and knowing the total amount of urine passed the total amount of chlorides can be computed. The normal individual passes from 15 gms. up according to amount ingested. You will find that when the urinary acidity remains constantly high that the output of chlorides gradually diminishes so that in some instances there is only a trace. I believe this indicates that these bases are being utilized by the body proteins to counteract the effects of the increased acid production.[1] When the body utilizes these available bases in order to protect itself it then breaks down its proteins into ammonia to still further help neutralize these acids. The normal ammonia output is below 0.7 grams, but in these instances this greatly increases so that instead of it being 4 or 5% of the total nitrogen it runs up to 20% or more.

A simple titration method for the estimation of ammonia, which only takes five minutes to apply, is the following: Into a flask place 10 c.c. of urine, 5 grams neutral potassium oxalate, and 50 c.c. distilled water, and a few drops of 1% phenophthalein. Mix well. Into another flask place 5 c.c. of 20% formalin, and a few drops of phenophthalein; bring both to neutral point by adding drop by drop n/10 Na OH. Now add the formalin mixture to the urine. This drives off the ammonia; then add from a graduated burette n/10 Na OH till the pink color returns. Every c.c. of n/10 Na OH used equals .0014 grams of ammonia in 10 c.c. of urine; this multiplied by the amount of urine gives the amount of ammonia present. By dividing the ammonia into the urea output you can get the ratio. This is normally between 1 in 20 to 1 in 30.

The upset of carbohydrate and fat metabolism is shown by the presence of acetone and diacetic acid and should always be noted as it calls for intensive carbohydrate feeding when present.

Treatment. If this reasoning has been correct we should expect that means employed to relieve the initial tissue edema and to combine with these toxins and favor their elimination would be productive of good results. Martin Fischer has shown that the hydrating effects of free acids can be counteracted by not only alkalies but neutral salts, and that when this hydration takes place by the non-electrolytes, as urea, alcohols, and toxic amines, alkalies and salts are of no effect, but dehydration can be accomplished by the use of hypertonic sugars, as *dextrose.*

As a prophylactic measure I see that the urine is kept alkaline to methyl red with any of the alkaline mineral waters, with the addition of a liberal carbohydrate diet. I believe if this is carefully carried out we would have few terminal toxemias to treat.

In the severe types of pernicious vomiting, and the cases bordering on or in convulsions more energetic measures must be resorted to. In these cases I always perfuse them, using directly into the veins at least 2000 c.c. of the following solution:

Na Cl	28.0
Na_2Co_3 10 H_2O	20.0
Ag Dist. (fresh)	2000.0

In using this cut down on the vein and introduce a small canula so that the solution will run in slowly. If you attempt to give this solution with a sharp needle through the skin you will get a slough if any gets into the tissues. At the same time drip into the rectum the following solution:

Dextrose (Anhydrous)	100.0
Ag. Dist.	500.0

You may criticize me for not mentioning in detail the treatment of the various symptoms of pregnancy toxemia, as headache, convulsions, high blood-pressure, etc., but as I contend they are all due to a common cause starting in edema and terminating in destruction of the organ involved, any method of treatment to be effective must be capable of inhibiting or changing these conditions if they have not gone on to an irreversible change.

As the treatment I have outlined attacks the initial cause of the various symptoms a repetition of them in detail would be a repetition of the various principles that I have attempted to place before you.

The overflowing of the circulation with large quantities of this sodium chloride, sodium carbonate mixture when you are dealing with a high blood-pressure may seem bad therapy, but instead of raising the blood-pressure by this means I find it the safest way to reduce it. In a subsequent communication [2] I will bring out the proof for this latter statement.

Discussion.

Dr. Thomas Addis: I do not quite gather from what Dr. Hogan said whether he regards toxemic conditions in pregnancy as an acidosis or not. It seems to me he showed some ten-

1 In some recent experimental work Martin H. Fischer has shown that proteins when subjected to the action of an acid not only swell but absorb an increased amount of chlorides. (Personal comment.)

2 Treatment of symptoms of high blood pressure by intravenous perfusion. James J. Hogan, M. D., M. R. C.S. Eng. Cincinnati Lancet Clinic, Jan. 2, 1915.

dency to shift over to substances such as putrescin and cadaverin. Suppose, however, that he maintains that there is a true acidosis in these conditions. If there is an acidosis—the term obviously means poisoning by acid—it seems to me that one of the first requisites before one defines such a condition is that one should have an acid that one can lay one's finger on. There is a true acidosis in diabetic coma, and we can say what the acids are: beta and oxybutyric and diacetic acid, and they are found in enormous amounts in the urine and in the tissues. But in this acidosis that Dr. Hogan talks about, matters are much more vague. There does not seem to be any particular acid. Lactic acid has not been found in large amount in the urine in cases of this description. There has been talk about amino acids. Dr. Hogan mentions that in two cases he found amino acids in the urine. Surely he knows that they are normal constituents in every urine. There is nothing to be made of in that. They may increase slightly in any marked disturbance of metabolism. No one has found in these cases any acid in any amount that could possibly cause damage to the body. There is just one other point about the urine. Dr. Hogan talks about an increase of the hydrogen ion concentration of the urine. He cites that as a reason for supposing that there is a poisoning by acids in these conditions. The hydrogen ion concentration, as a matter of fact, is no guide to the presence or the extent of an acidosis. It may, for instance, be entirely normal in diabetic coma.

He also talked about retention of bases in these conditions as indicative of acidosis but he mentions only sodium chloride. The retention of sodium chloride does not give any indication of acidosis. Sodium chloride is an entirely neutral substance, not a base at all, and would have no effect in neutralizing any possible acid.

I think it is time that there should be a protest against the application of this word "acidosis" to all this group of conditions. It is entirely unjustifiable from every point of view. There seems to be a sort of general tendency in America, England and Germany to group all these conditions under "acidosis," and they are trying to get all sorts of evidence, but they have not the one essential point of having an acid. The effort made to shift the thing over from the urine to the tissues seems to be without foundation. One does not find any proof of an abnormal amount of acid products in the tissues. Dr. Hogan makes the point that this is a clinical matter and that although the scientific aspects of the subject may not be clear, still there are indications for a useful method of treatment. I think one should be very cautious about practicing any new methods of treatment which depend entirely on clinical results. One knows how these conditions sometimes clear up very rapidly without any treatment at all. I think it is doubtful if any treatment should be given in such cases, especially such a possibly dangerous one as intravenous alkaline injections, without some sound scientific reason for it, and such a reason, I think, has not yet been given.

Dr. A. B. Spalding: I have listened to Dr. Hogan for two years, and I have hoped he would present, some time or other, an accurate report of a series of clinical patients. He never has done so. I could not listen to such a paper as Dr. Hogan has read this evening without entering some protest. If practitioners are to diagnose toxemia in pregnancy by finding acid urine and are to neglect all pregnant women with alkaline urine they are going to do great harm. If they are to delay the cure of a patient because the urine happens to be acid, and not alkaline, and allow these patients to go to convulsions (I have seen them go on to convulsions) with alkaline urine, they will do still greater harm to the community. I do not believe there is anything important clinically to be gained by a study of the hydrogen ion concentration of the urine. To lead the profession away from well-known methods for watching patients that are pregnant (such as a routine study of blood pressure); to urge that pregnant women be permitted to go along without attention except a reaction test of the urine, is something that is beyond my conception of intelligence. We have to watch very carefully patients that are pregnant. They are in a serious condition. They are carrying a foreign proteid in their blood that may express itself, when not properly digested, in a great many ways which clinically are called toxemia of pregnancy. It takes more than has been given to us by Dr. Hogan tonight to properly safeguard the pregnant patient.

Dr. R. Knight Smith: When people like Dr. Hogan, Dr. Addis and Dr. Spalding disagree, I do not see why I should have anything to say, but I have just a little.

I do not know what the condition is that produces toxemia in pregnancy, and neither does anyone else. We know that ordinarily it is manifested by certain definite symptoms of certain definite organs. We also know that so far we have had no remedy for it except cutting down the amount of intake of food and increasing the amount of elimination. As Dr. Hogan has expressed it, when these conditions are ordinary, the urine is alkaline to methyl red solution, as he exhibited tonight. Pregnant patients having symptoms of toxemia practically always have an increase in the amount of acid reaction, in the amount of color on the piece of paper; in other words, where the normal urine gives a yellow color to the methyl red, where there are symptoms of toxemia it becomes scarlet red. A few days' treatment in these cases, with reduced diet and some Vichy water, producing the yellow or alkaline reaction in the urine, always relieves the symptoms the patient has been exhibiting. Allow me to present a case. Mrs. H. comes from abroad, giving a history of chronic nephritis, of premature labor at about seven months to save her life, saying her diet had been laid down as so and so, which was absolutely first class for the condition involved, having an intensely acid reaction in the urine with casts and albumen in abundance. A change of diet, a bottle of Vichy water for three days resulted in alkaline reaction, no casts and no albumen, and she has continued so for a number of months. Whether there is anything in it or not, I do not know, but it is well worth such people as Dr. Spalding and Dr. Addis giving it their absolutely scientific investigation and giving us the benefit of their investigation.

Dr. Martin Fischer: Mr. President, if I may have a word—I have listened with great pleasure this evening both to Dr. Hogan's remarks and to the stimulating criticism. I do not think there is half so much reason for differing in views as there seems to be. Inasmuch as in some of the things that have been discussed I have worked myself, may I be pardoned not only for discussing Dr. Hogan's paper but also for making a remark or two on some of the criticisms?

Whenever we talk of acidosis it is well to begin with a definition. I am glad to hear Dr. Addis say what most people do not say, namely, that it is to be looked upon as synonymous with the words "acid intoxication." The mere finding of certain abnormal substances in the urine, as the acetone bodies, is not an indication of acid intoxication. It is evidence of an abnormal metabolism which is producing abnormal acids and nothing more. When these come to be formed in such great amounts that they more than balance the bases normally available, be this fixed base ammonia or protein (with which acids and alkali are

both able to combine), then an acid intoxication is at hand.

Let us first ask what evidences develop in any animal if we deliberately poison it with acid. It dies rather shortly with those characteristic symptoms of disturbances in respiration, disturbances in circulation, coma, convulsions, and certain changes in the parenchymatous organs identical with those observed in patients dead of an acid intoxication. Before death occurs, what do we find in the blood and in the urine to indicate the acid intoxication? We find in both evidences of an increased acid content as betrayed by an increased titration and hydrogen ion acidity of the urine and a decreased titration alkalinity and increased hydrogen ion acidity of the blood. Because these changes are not of a blatant type it has been said that they are of no significance, or, in the words of some critics, that similar changes in the titration or hydrogen ion acidity of the body secretions are not evidence of an acid intoxication.

The incorrectness of such argument can be readily appreciated if we but recall the experiments of the chemical laboratory. Suppose we take a protein material like eggwhite and put an indicator into it. The mixture shows a certain degree of alkalinity to the indicator. If we now begin adding acid to the protein the indicator does not at once begin to change. Would anyone maintain that because we see no change in the indicator no acid has yet been added? If after adding some 5 or 10 c.c. the indicator still shows no change would anyone say that the acid content of the protein has not yet been increased? Certainly not. The progressive change in the protein is evident from the moment that the first fraction of acid is added if we will only use a proper method for discovering it, such as the measurement of the viscosity or the swelling of the protein.

Exactly the same thing happens in the body. From the moment that we consume or produce any acid we increase the acid content in the body and may get an increased swelling, but for obvious reasons an indicator may not immediately betray the presence of the additional acid. It is for these reasons that we do not at once see a change in the acidity of the urine. The body possesses various mechanisms for neutralizing acid and not until these have been heavily drawn upon will the reaction of the urine or any other secretion change perceptibly. An acid intoxication is met originally by the fixed bases in the body; the proteins also combine with acid and neutralize it. In the carnivora, moreover, among which we are to be counted, the organism has a third method of meeting the acid intoxication, namely, by an increased production of ammonia. If you do not believe these things you can easily test them out for themselves. Nature does it many times. When we voluntarily produce large amounts of acid, as in muscular exercise, the acid content of the body mounts up. If the urine is examined before and after such exercise a marked change in its titration or hydrogen ion acidity will be noted. Moreover, if the exercise has been continued long enough the increased acidity will be accompanied by albumin and casts.

So far as the nature of the acids appearing in the body is concerned, the following may be said: In many metabolic disturbances other kinds of acid than those "normally" produced may appear. Thus, diacetic and betaoxybutyric acids are produced in carbohydrate starvation, while lactic, valerianic, and succinic acids are often produced, at times in enormous amounts, in circulatory disturbances, in the anemias, and in many of the intoxications. But the production of abnormal kinds of acids is not the characteristic feature of acidosis. In the absence of sufficient alkali, with excessive protein feeding, etc., the sulphuric and phosphoric acids (of which in addition to carbonic acid we produce large quantities daily in our metabolism) may alone bring about an intense acid intoxication without the appearance of any abnormal acids in the urine. The characteristic feature of acidosis resides in the overbalance between available alkali and acid in favor of the acid side.

Dr. Hogan has brilliantly emphasized a number of points. If you do not believe that there is evidence of an acidosis in the pregnancy intoxications I would suggest that you follow his advice and test the urine as he has described. It is a very simple matter to determine whether or not your patient is showing a persistently high hydrogen ion acidity of the urine. If you have a patient who is running persistently acid to methyl red and you can not reduce this acidity by feeding alkali you have a dying patient on your hands. I have never seen such a case recover, no matter what lay behind the acid intoxication, whether a pregnancy nephritis, a heart disease, or a diabetes.

I should like to emphasize that the matter of whether pregnancy intoxication is wholly an acid intoxication or not is rather beside the point. The main fact is that the changes in the kidney, the changes in the liver, the changes in the brain, etc., are in essence all edemas of the affected parts. When these edemas affect a kidney, a brain, or a medulla they are likely to prove fatal, because these organs through hampering capsules and bony surroundings cannot swell indefinitely without shutting off their own blood supply and so killing themselves. The important element in treatment is to reduce this swelling. The swelling itself represents, technically put, an increased hydration of the colloids of the involved parts, and there is no question but that an abnormal accumulation of acid in such parts is one of the causes. There is certainly no harm in recognizing this obvious fact, and so by the use of alkali and salts trying to lessen the severity of the clinical symptoms.

I should also like to emphasize that not every albuminuria developing in a woman in the course of her pregnancy is at once to be regarded as a consequence of this. Infections of the kidney may occur during pregnancy as at any other time in the life of an individual and many an arteriosclerotic with kidney involvement falls pregnant. I have also seen nephritides in pregnant women in which it was held that the protein intoxication was responsible for the death of the fetus when as a matter of fact, the story was the other way about. The fetus frequently dies in utero in a syphilitic mother and its decomposition then gives rise to an intoxication which manifests itself from the side of the kidney by a decreased urinary output with albumin and casts.

It is rather curious to see how we cling to the religion of our youth as we work along in medicine. No matter what new fact experiment may show, we continue all too often unmoved along the path of teaching of our early days. There is no bigger fairy tale than that to which Dr. Hogan has called our attention, namely, that of the so-called consequences of kidney disease. What we call the consequences of kidney disease are almost without exception not such. The generalized edema, the "uremia," the high blood pressure are not due to any lack of kidney function, for if we cut the kidneys out of an animal or if in a patient the surgeon or nature performs this experiment for us, none of these symptoms result. But when we give an animal a "kidney poison" of some sort, such as uranium, it develops an edema in the course of a few hours which at the end of a couple of days may have increased to represent fifty per cent. of the original body weight. The animal at the same time shows an increasing stupor and is likely to go into convulsions. These findings mean only one thing, that what we call

the consequences of kidney disease are not consequences but the same thing as the kidney disease manifested in the different organs of the body and all due to the same poison which produced the kidney change.

If we apply this principle to the pregnancy intoxication we can see that to go home from such a case satisfied because the urine shows no albumin and casts is a dangerous mistake. In spite of that the woman may die of convulsions, for the poison which has left her kidneys unharmed may in its unequal distribution through the body attack the brain. The headache of which your patient complains is a more serious symptom than any amount of albumin or any number of casts, because she cannot stand as much swelling in her brain as in her kidneys.

The matter of whether a man in practice will or will not use alkali and salt in his pregnancy cases must, in the end, be left to his own judgment and conscience. Unless there is some good reason for using these things, by all means let us withhold them. What we do is after all but an expression of what we are as scientific men. Many centuries ago Aristotle put it very well when he said that the man of experience is interested in the fact and the man of science in the wherefore of the fact. I must say, as a man who works daily in medicine I am constantly surprised at the ease with which men talk about facts and handle facts in our science and never ask why they are or how they are to be connected. It makes us men not of science when we do not try to put them together. Now clinical experience is a very important and very essential thing, but why must thousands of pregnant women go through our hands each year and we never ask why that thing we call pregnancy intoxication occurs? Why must we give an ounce of magnesium sulphate because "John Smith" says so, or so many drops of veratrum viride because Peter Jones says so? May we not ask why? Unless there be some sort of reason for our activities let us do nothing.

So far as the question of the nature and the cause of a pregnancy toxemia is concerned the solid fact remains that in this condition we have to do with edemas of the brain, of the kidney, of the liver, etc., all of them the expression of a toxic injury to the involved organs. Whenever any organism or any part of it is injured it swells. This reaction goes down to the individual lacerated cell. A glass point pushed into a cell is followed by a streak of edema. It is the one universal reaction to injury. We have already seen how swelling in certain organs is followed by serious consequences. Is it not logical to ask how we can reduce it? The reason why proptoplasm swells is a pretty well settled thing. The amount of water it holds normally is increased. All the water in our body is held as hydration water, and edema is simply a state of increased hydration. When we have come to this conclusion we need next to ask how the increased hydration is brought about. We know physico-chemically what substances will make colloids hold a more than normal amount of water. Is it forbidden to use such knowledge in the clinical case? There is no question about an abnormal production and accumulation of acid in the involved parts playing a big role, probably the biggest. Urea may also play a role as well as the amines and like substances. Some of the toxins are amines. When we deal with an acid hydration we know that we can reduce it very easily by employing alkali and salts. A urea hydration and other hydrations not reducible through salts and alkali are reducible through carbohydrates. What is there harmful about using alkali, salt, and dextrose on a patient, especially if we and our colleagues think she may die? If after they have been used she does die, the expected will merely have happened. If she lives it proves nothing, but it may encourage repetition of the experiment.

What, after all, is the purpose and the ultimately achievable in all our practice? It is true that nature cures most of the cases. But when can nature do this? Only when the process is reversible. Not even nature can cure a third stage burn. Our function as doctors is to find out which processes are reversible and which are not, and to aid nature in hastening the reversion.

I think that is about all to be said in the matter. I thank you very much for your attention.

Dr. Hogan (closing): There is little for me to add as I believe Dr. Fischer has answered to my way of thinking the criticisms of Dr. Addis, and it would be useless for me to reiterate them. As to Dr. Spalding's remarks, they seem more of a personal nature; he demands, as a teacher of obstetrics in this community, that he is in a great way responsible to prevent any of you here from being misled into short and false cuts in the diagnosis and treatment of the toxemias of pregnancy. Dr. Spalding may not think so but the energy he so kindly gives me credit for has been expended for the past three years in trying to apply some of the principles of physical chemistry to clinical medicine. If my work is right it will stand by itself, and no amount of personal opinion will break it down; if it is wrong it will fall by its own weight. Time alone will test this.

I wish to repeat what I have said before: I believe every word I have given you tonight is founded on strong experimental proof and has been tested on enough clinical material to prove its worth.

I do not ask you to diagnose and treat your pregnancy toxemias by the use of a single indicator. If Dr. Spalding had followed me he would have understood that I stated that you have an early easy means in diagnosis; first, by the increased urinary acidity; second. the retention of salts, as shown by sodium chloride; third, an upset in the ammonia coefficient, and I wish to state here that these changes long precede the high blood-pressure that he speaks of. When you have severe headaches and high blood-pressure it shows a beginning brain edema, which is a late sign.

I do not ask you to take for granted what I say but would suggest that you try it for yourself, and let your personal results decide the matter in your own mind. I thank you very much for your attention.

Dr. A. B. Spalding: In reply to your remark that my remarks were mostly personal, I admit they are personal, and I intended to make them personal, because I think you are trying casually to present something that should be seriously handled and without showing the doctors a scientific study of a series of patients. Toxemia in pregnancy when accompanied with convulsions carries a high mortality and any new method of treatment should be backed up by a report of patients showing whether you are reducing the mortality or not. Your papers have not, so far, presented such facts. Personally, I have a high regard for your energy and particularly for Dr. Fischer's theories, but I do not believe any practitioner should come out as you have done and present such a serious subject without clinical facts to show that by testing the urine for acidity more accurate diagnoses can be obtained than have in the past been obtained by more extended observations of pregnancy, and also that the present mortality of eclampsia can be lowered by any treatment based upon such a urinary examination.

THE INFLAMED EYE—SOME COMMENTS ON ITS DIAGNOSIS.*

By GEORGE H. KRESS, B. S., M. D., Los Angeles.

The subject of the inflamed eye, and its diagnosis, is taken up before this society of general practitioners, not so much because it is possible to present much that is new or startling, as for the reason that the inflamed eye, as such, is often first seen by the general practitioner; and because the subsequent cosmetic and economic efficiency of both the eye and the individual can be said in certain of the graver of inflammatory conditions of the organ of vision, to depend largely upon what steps are taken in the way of treatment at the beginning of the trouble.

Diagnosis becomes, therefore, a matter of considerable importance. In discussing the diagnosis of the inflamed eye, it is necessary to keep in mind certain of its anatomical characteristics, because the symptoms are often largely dependent upon the peculiar anatomy of this organ; and a brief review of these will therefore be first outlined.

A BRIEF SURVEY OF THE ANATOMY OF THE EYE.

To begin then, as regards the bony orbit. There must be kept in mind the connection with the neighboring nasal sinuses, and the possibility of extension of inflammation from these adjacent cavities. Likewise, must be remembered the adherent periosteum of the bony orbit, and the very loose meshwork of connective and fat tissue in which the eyeball is virtually slung.

In the eyelids, there is also a great amount of connective tissue, interspersed with the cartilages and Meibomian glands. Malposition of eyelashes can be sources of irritation, also.

At the inner angles, the lacrimal puncta, and the lacrimal canals and sacs, present problems of drainage and possible infection.

The conjunctiva upon the internal aspect of the lids is quite loose, and is freely supplied with blood vessels; upon the white sclera it is much less loosely applied; and upon the cornea, the single layer of conjunctival epithelium is most firmly attached. The conjunctiva, in its function as a mucous membrane, must be remembered as having a direct connection with the mucous membrane of the nasal and oral cavities.

In the cornea, we have to deal with the clear window-like structure that covers the anterior fifth of the eye, and which consists of three layers; the thin anterior layer of epithelial cells resting on the homogeneous Bowman's membrane; the major or middle layer being largely a specialized connective tissue stratum; and the posterior surface being likewise of a somewhat homogeneous character, with a layer of endothelium, as described by Descemet. This non-vascular corneal structure has coursing throughout, a very large number of non-medullated nerve fibres, whose great sensitiveness gives prompt warning of injury to the structure.

In the white sclera, or outer covering of the remaining portion of the eye, we deal virtually with a continuation of the sheath of the optic nerve, the whole being of a quite fibrous and firm makeup.

The iris, or curtain of the eye, presents the center aperture, or pupil, and gives us for consideration, a somewhat circular and contractile tissue, composed of elastic and muscular fibres and blood vessels. The ligament of the iris permits it to hang in the aqueous humor cavity between cornea and lens, so as to divide that space into two parts, the anterior and posterior chambers.

In the middle coat of the eye, or choroid, we deal with what is usually a very much pigmented structure, and which is most generously supplied with blood vessels. At the margin of the cornea, the edge of the choroid slips forward to form a sort of frill, to which we give the name of the ciliary processes.

Internal to the choroid of the eye, we have to consider the retina, which is nothing else than the extension forward in an expanded form of the optic nerve.

The vascular supply of the various tissues just enumerated, and the intimate anastomosis of some of the different groups of vessels, is very important in the interpretation of the symptomatology of inflammatory eye conditions. The possibility of great extravasation of serum and blood into the loose orbital tissue from the ordinary blood vessels of the orbit, is a phenomenon with which all are familiar. The ophthalmic arteries and veins which enter with the optic nerve, in themselves, however, are not so often concerned with external inflammations of the eye.

The blood vessels of the conjunctiva can usually be recognized as they pursue their winding course forward, their color being brighter, and they being moved easily with the conjunctiva itself.

The non-vascular nature of the cornea has already been mentioned, but outside its edge, or limbus, we have the anterior ciliary arteries, which coming forward along the recti muscles, perforate the sclera in this region. The sclera, farther back, about one centimeter or so away from the limbus, is also pierced by the posterior ciliary vessels, which proceed forward and anastomose with the anterior ciliary arteries. The anastomosis of the various sets of blood vessels has much to do with giving any information of the eye, its "special color" or picture.

So much for the discussion of some of the anatomical features of the eye, which, as stated before, are taken up here only because in the presentation of symptoms, a clear picture of the anatomy will help make easier an understanding and interpretation, of the subjective and objective phenomena as met with in inflammatory conditions.

THE OBJECTIVE AND SUBJECTIVE EXAMINATIONS OF THE INFLAMED EYE.

So much dependent upon the vascular phenomena are the pictures of inflammatory conditions of the eye, and so closely interrelated are these vascular supplies of the different eye tunics, that the inflammatory condition as it first confronts the physician, only too often presents a picture that is

* Read before the Long Beach Medical Society, Long Beach, Cal.

confusing; because when the eye is seen for the first time, the secondary irritation may in good part obscure the original features of the disease process. On that account, a carefully taken history will aid greatly in the making of the differential diagnosis.

History. First, then, it is important to know whether one or both eyes are affected, and if both, which the more, and to know the date of onset of the condition, and the chief symptoms which are complained of.

In the matter of pain or tenderness, its location, kind and duration can be important. Sensations such as itching, feeling of sand, or other discomfort, such as smarting of the lids, may be facts worthy of note. The flow of tears and the amount; headache, location, type and periods during which it is most aggravated; and visual acuity, whether it is obscured or materially diminished, must not be forgotten.

In connection with the subject of visual acuity, it may well be asked whether every general practitioner should not have as a part of his general office equipment, an eye chart designed for the testing of distant vision. The chart arranged by the A. M. A. Conservation of Vision Committee, and which can be purchased from F. A. Hardy & Co., Chicago, at a cost of twenty-five cents, is one which contains full directions, and which is very well adapted for such tests.

The above belong to the subjective phenomena met with in external inflammatory conditions of the eye. In inflamed eyes, the objective examination usually concerns itself first with those signs which can be determined by daylight.

Daylight Examination.

Daylight Examination. Under this head the following items must be noted: Whether or not the eye is congested, and if so, whether this congestion seems to be more limited or centralized to the conjunctiva of the lids; to the region of the corneal limbus; or whether it is of a more posterior and of a deeper or episcleral type.

The amount of discharge, whether of a simple or purulent character; and the condition of the tear sac, and whether pressure exposes any abnormal secretion therefrom.

The patient's dread of light, or photophobia; blinking and nystagmus; the condition of the lashes and lid margins.

The tension of the eyeball, as taken through the gently closed lids with the finger tips (or if in doubt, with the instrument known as the tonometer).

The condition of the conjunctiva, both of the lid and globe and of the sulcus folds.

In the window of the eye, or cornea, the existence of ulceration, the presence of foreign bodies, or of opacities of different degrees of density.

In the anterior chamber, there may be a change in the depth, or the aqueous may be less clear; or there may be an exudate, such as a pus exudate (hypopyon), or there may be a blood extravasation (hyphema).

The iris may be changed in color, and its markings less distinct; it may be tremulous, or its pupillary edges may be attached to the lens capsule by adhesions.

The pupil may take an irregular shape, owing to adhesions; and its capacity and rapidity to react to light, and also to accommodate, and whether the size of the pupil is the same in both eyes, all must be taken into account.

The above are some of the major phenomena to consider in the examination with daylight.

Dark Room Examination. In the dark room, or in a partially dark room, an ordinary hand flashlight lamp, held to throw light upon the eye cavities, can corroborate or make plainer some of the conditions just noted.

If one has the regular ophthalmoscope, or what is easier to work with and especially much more easy for the general practitioner, one of the electric ophthalmoscopes, one is able, with no lens in the aperture and at a foot's distance or so, to come to a better understanding regarding the exact form and density of foreign bodies, or opacities, in the cornea; and then by swinging the wheel to bring into range the plus 16 diopter lens, and then examining the eye at the focus of that lens, one can corroborate still more of what was previously observed. With the ophthalmoscope, too, it will be possible to determine the presence of opacities and foreign bodies in the media and the fundus. The intensity of the red fundus reflex will also tell one promptly the general condition of the interior of the globe, and with the proper lens, the exact condition of the fundus may in most instances be observed.

Those of you who meet with eye conditions in your work, may find the copies of the charts which were devised by the writer for use in the State University Clinic, at Los Angeles, to be not without some interest and some value as a means of rapidly obtaining and tabulating a fairly complete history. (See adjacent pages for copies of these charts.)

Referring to these charts, you will note that on the front of these five- by eight-inch filing cards, there is a spacing for longhand histories at the top of the page (for the three questions of date of onset, eye most involved, and the chief symptoms), which can be continued on the other side in the third column. Also that the arrangement of the card divides into two major groups, the subjective and the objective examinations; subdividing the objective into those signs that are noted by daylight, and those that are noted in the dark room (these latter, or dark room inspections, being carried on first by means of a flashlight lamp for oblique illumination, with or without a magnifying lens, or with magnifying spectacles; and second, with the ophthalmoscope, with and without lenses of varying degree).

With a history taken along the lines indicated, we have gathered on the whole data upon which the diagnosis will be made, and this portion of our subject can now be considered.

THE DIFFERENTIAL DIAGNOSIS OF THE MAJOR GROUPS OF INFLAMMATORY EYE CONDITIONS.

The particular group of inflammations of the

Surname | Given Name { Mr. / Mrs. / Miss } | Address | St., City

Card Number | Date | 1. Race | 2. Sex (M.F.) | 3. Age | 4. Social (S. Md.Wid.) | 5. Nativity | 6. Occupation

7. History (*Note: Write here chief organs and sites affected, date of onset; and notes, if pertinent, on personal and family history, previous eye diseases, chief symptoms, outline of previous treatment; present treatment; course, etc.*)

(*Note: This history, with treatment, etc., is continued on the other side. See item 46*

8. Tentative Diagnosis is

8a. Final Diagnosis is

8b. This patient in service of Dr.

8c. This history taken by Dr.

9. Outline of Treatment:

I. SUBJECTIVE EXAMINATION

10. State here what eyes are referred to O.U. O.D. O.S.

11. Pain { Location / Kind / Duration }

12. Sensation { Smarting / Itching / Sandy / Discomfort }

13. Lacrimation { Amount / Character }

14. Reflex { Headache { Location / Character / Time worst } / Indigestion / Neurasthenia }

15. Visual acuity { Distance { O.D. / O.S. } / Near O.D. reads No.____ at ____" / O.S. " No.____ at ____" / Date of onset dimin. vision / Dark spots before eyes }

II. OBJECTIVE EXAMINATION

A. DAY LIGHT

16. Congestion { Conjunctival / Corneal circumcorneal / Episcleral / Subconj. hemorrhage }

17. Lachrymation increased

18. Discharge { Amount / Character }

19. Photophobia

20. Blinking

21. Nystagmus { Horizontal to / Vertical / Rotatory }

22. Palpation { Increased tens / Decreased tens / Tonometer registers }

23. Lids { Swollen / Power closing / Edges }

24. Tear Sac (On pressure)

25. Cilia

26. Conjunctiva { Upper { Bulbar / Tarsal / Retro-tarsal } / Lower { Bulbar / Tarsal / Retro-tarsal } }

27. Cornea { Inflammation / Ulceration (draw diagram) / Vascularized / Opacities / Foreign bodies / Sensitiveness / Reflexes }

28. Ant. Chamber { Depth / Clearness / Exud. etc. { Hypopyon / Hyphaema } }

29. Iris { Color / Tremulous / Adhesions (diagram) }

30. Pupil { Size / Shape / Light reaction }

31. Miscellaneous

Note: For dark-room, vision tests, etc., see other side.

INSTRUCTIONS TO CLINICIANS—Write plainly; strive to keep records accurate and up-to-date. Plus sign (+) indicates yes or positive; zero sign (0) indicates no or negative. You can underline special symptoms to draw attention, if desired. When neither yes or no sign is used, it is assumed no abnormalities are present. Draw diagrams when possible. (Arranged by G.H.K., Oct. 10, 1913).

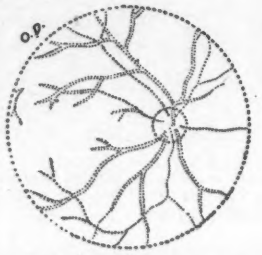
Continuation of History of Card No. Patient Named

II. OBJECTIVE EXAMINATION, (*Cont'd*)

B. DARK-ROOM

32. Oblique Illumination { Media clear / Opacities { Shape / Color }

33. Opthalmoscope (Indirect Ex.)
34. Opthalmoscope at 16″=Media.....Clear
34. Opthalmoscope with +16 D. lens=
35. Opthalmoscope (direct ex.)



Right Eye O.D.

- Disc.
  - Shape is circular .....
  - Color is rose-reddish .....
  - Edge is.....well defined; .....tendency to merge off .....
  - Cup is.....sm., mod., large; shallow, deep
  - Chor. ring is.....faint, thick: all round, more on.....side
  - Scleral ring is.....faintly present
  - Lamina does not show.....
- Bld. Vess.
  - Number and course.....approx. normal
  - Light reflexes.....good on veins and art
  - Feeble, moderate, marked pulsation of following veins.....
  - Tortuosity of following bld-vess. .....
- Mac. Reg.
  - Col. reddish. One.....bright foveal dot present .....
- Fund.
  - Fundus of feeble, moderate, pronounced blonde, brunette type.....
  - Pigmen.....homogen.; .....tessellated

36 Left Eye O.S { Approximates O.D. except as follows:

III. REFRACTION TESTS

37. Opthalmometer:
O.D.= ±..... at axis.....
O. S.= ±..... at axis.....

38. Manifest:
O.D. = ... Sph. =..... Cyl. axis.....=
O. S. = ... Sph. =..... Cyl. axis.....=

39. Near V.:
O.D. Reads No. .....at.....inches
O. S. Rdeas No. .....at.....inches

40. Muscle Bal.:
.....degrees Esophoria
.....degrees Exophoria
.....degrees Hyperphoria

41. Retinoscope:
O.D. =..... Sph. =..... Cyl. axis.....
O. S. =..... Sph. =..... Cyl. axis.....

42. Cyclopleg. T.C.:
O.D. = ... Sph. = ... Cyl. axis.....=
O. S. = ... Sph. =..... Cyl. axis.....=

43. Post-Cyc. T.C.:
O.D. = ... Sph. =..... Cyl. axis.....=
O. S. = ... Sph. =..... Cyl. axis.....=
O.D. with above reads No.....at.....inches
O. S. with above reads No.....at.....inches

44. Prescription:
Date.....*See also R Book*.....*Page*.....

		SPH.	CYL.	AXIS	PRISM	BASE
DISTANCE	RIGHT					
	LEFT					
READING	RIGHT					
	LEFT					

45. Miscellaneous

46. History, (*Cont'd from top of reverse, see No. 7*)

47. Other data concerning this patient:
See also.....Clinic Card No.....
See also Special Exam. Serial Card No. .....

eye, which it is quite important to differentiate, may be said to be four, namely:

1. Those which have to do with the conjunctiva;
2. Those which deal with the cornea;
3. Those which deal with the iris;
4. Those which deal with the tension of the eye.

The differential diagnosis will concern itself therefore largely with a judgment as to whether the inflamed condition is a conjunctivitis, a keratitis, an iritis, or a glaucoma. In addition to the above four major groups, the following special conditions might also be remembered:

A. If the orbital tissues are especially injured, we may have to consider also a traumatic or infective cellulitis.

B. As regards injuries, there may be trauma to any of the tunics previously mentioned, so that here we can deal with traumatic infections of the conjunctiva, cornea, iris, and other tissues; and these may vary all the way from simple mechanical inflammations to an infection that can present the picture of a panophthalmitis.

C. The comparatively mild inflammation associated with lid conditions, such as an occluded Meibomian gland (chalazion); an infected eyelash follicle (hordeolum or stye); and the irritation due to malposed eyelashes (trichiasis), must also be remembered.

D. With the comparatively infrequent inflammations of the sclera, this paper will not concern itself, for as stated before, the particular and more important conditions to be differentiated, are the various forms of acute conjunctivitis, acute iritis, keratitis, and the acute glaucoma.

In making the differential diagnosis of these conditions, the facts noted on the history card which has been passed to you, will give most of the data that is necessary. In the consideration of the facts there noted, the following additional differential points may be kept in mind.

Tension. Glaucoma shows the increased tension, and, therefore, in making your examination, it is well to take this tension through the gently closed lids by palpation; or if you wish to be more exact, with the instrument known as the tonometer. The tension is not changed in conjunctivitis, or in keratitis, and only occasionally to a slight extent in iritis. Glaucoma is most frequently found in patients past the age of forty.

Pain. In all these acute inflammations, there is pain; that in conjunctivitis being least, the condition there being more one of discomfort, with smarting of lids, of a feeling of sand and of foreign substances. The combinations of sharp and spasmodic pain in a tender eyeball (usually worse at night), is the type usually associated with iritis. The glaucoma pain, while extreme at times, does not as a rule increase at night. In the corneal inflammations, the globe is usually not so tender, nor is the pain so severe as in glaucoma or iritis.

Secretion. The many glands of the conjunctiva make for an increased secretion when that tissue is inflamed, and consequently the lids are more apt to be sticking together in the morning, in conjunctivitis. In the other conditions, the secretion of mucous in not so great, although in the inflammations of the cornea, the increased lacrimation is apt to be marked.

Vision. The vision would naturally not be much affected in simple inflammation of the lids; but in glaucoma, there may be a sharp and early decrease; while in iritis, the diminution is usually less and generally more gradual. In the corneal inflammations, the diminution of vision depends largely upon the amount of turbidity of the cornea and aqueous.

Vascular Changes. The vascular changes are a picture somewhat of the blood supply to the regions specially involved, the injection in the different kinds of conjunctivitis showing superficial blood vessels that are movable with the conjunctiva; the greatest amount of injection being on the lids, and being less as one approaches the edges of the cornea. In iritis and keratitis, the sclerocorneal region usually shows marked vascular injection, the color in iritis being reddish, while in keratitis there is more of a pinkish hue, the vessels breaking up into a little network outside the limbus.

Photophobia. As regards the patient's dread of light, the greatest amount of photophobia is seen in the corneal inflammations, the amount of photophobia being quite slight in the other conditions.

Corneal Sensitiveness. If the cornea be touched with a small brush of cotton on the end of a toothpick, there can usually be determined a diminution of sensitiveness in the glaucoma, while in keratitis, the sensitiveness is apt to be increased.

In the above we have been dealing largely with symptoms and general signs. When we begin to consider the individual eye tunics themselves, we can note among other factors, the following:

Conjunctiva. The conjunctiva is naturally involved in a conjunctivitis, and when the inner aspect of the lid is examined, it is usually seen to be quite red and swollen; but in glaucoma there is no change of any special note, nor much in keratitis; and only in iritis are we apt to find any thickening of the conjunctiva, and that usually not much.

Translucency of Cornea. A localized or general change in the translucency of the cornea may be noted in a keratitis, and in a glaucoma there may be a steaminess; while in iritis there will be less change in the cornea, unless of a secondary involvement.

Anterior Chamber. The anterior chamber is practically normal in these four diseases, except in glaucoma, when its depth becomes decreased because of the pushing forward of the iris and lens.

Iris. The iris shows its greatest change in iritis, losing its gloss somewhat, and being either discolored or swollen. In the corneal and conjunctival affections, there is no special change in the iris; but in an acute glaucoma, the iris markings may be less sharp.

Pupil. The pupil in conjunctival and corneal infections remains practically normal, but in iritis usually a small pupil is met with, which responds

sluggishly or not at all to light, and which may have an irregular form if adhesions be present. In glaucoma, on the other hand, the pupil is usually dilated, but here also its response is slow, and the pupillary area is furthermore apt to take on a greenish color.

IN CONCLUSION.

This concludes the consideration of the factors which are usually taken into account in making the differential diagnosis in the four major types of inflammation we have been discussing, namely in acute conjunctivitis, iritis, keratitis, and glaucoma.

It need hardly be emphasized that an exact diagnosis is of special significance when we deal with iritis and glaucoma, because the therapeutic indications are not only virtually opposite, but if the proper medications of the one are used for the other, the results are apt to lead to grave consequences; for in iritis, while atropin is a great standby, both in the relief of pain and in resolution of the disease process, this same atropin, when used in a case of glaucoma, will help increase the pain and may do irreparable injury to the sight.

Lack of time prevents the discussion of further differential points involved in the various types of conjunctivitis, such as the simple follicular, the phlyctenular, the purulent, and the trachomatous types; nor can we discuss here the various forms of iritis, keratitis, and glaucoma.

It is hoped, however, that what has been presented may be of some service to you who are general practitioners in giving you a brief resurvey of some of the conditions that you not infrequently meet with in your own practice, and which you are often either called upon to treat, or to refer to some ophthalmologist.

OPERATIVE PROCEDURES OF OCULAR MUSCLES IN HETEROPHORIAS.*

By E. W. ALEXANDER, B. S., M. D., San Francisco.

When is one justified in resorting to surgical methods of treatment in heterophoria and what surgical procedure should be used? I have not selected this subject with the expectation of presenting anything original, but in the hope of stimulating a discussion on a rational treatment of a decidedly distressing condition, which receives very scanty or disjointed consideration by many ophthalmologists. The subject is a very large one and has been freely treated in magazines and monographs, sometimes requiring several volumes. Therefore I will proceed directly to the discussion of concrete examples rather than to the review of the text, with which you are familiar.

Case 1. A young woman with exophoria complained of the usual symptoms of frontal to occipital headache, "pulling" sensation in the eyes during accomidation, dizziness, nausea, etc.

Examination showed O. D. V. w—0.37=+0.62 x 100 =6/6+; O. S. V. w—0.37=+0.75 x 85=6/5. Screen test, divergent tendency. Phorometer, Exophoria 4°—6°; adduction 6°; abduction 8°.

The patient's mother had had ten or twelve operations, consisting of snipping one or more muscles, until the symptoms were relieved, for a similar condition. The same program had been advised for the daughter without preliminary cycloplegic refraction or treatment.

This case is clearly one of insufficiency of the internal recti, either due to intrinsic muscular power, or to one of those subtle co-ordinative functions of the motor nerves. In the latter event educational and other types of exercises should be taken up, together with an exhaustive search for a source of reflex irritation. This is beyond the scope of my paper. Taking for granted that the case quoted is one of intrinsic muscular insufficiency, it is perfectly clear that the only type of operation which could be utilized would be some sort of advancement, and not "nicking."

Any way of giving increased mechanical advantage which suits the fancy of the surgeon could be used; either tucking, shortening or advancement. I can highly recommend the advancement operation described by Dr. V. H. Hulen on account of the accuracy and stability of the scleral stitch and the advantage gained by the method of traction when tieing the sutures. However, such cases respond very well to exercises with prisms and to gymnastics. It has been my practice to give printed instructions covering such details as illumination of the room; regulation of distance from candle; posture of head; position of prism, etc. Also it is wise to inform the patient at the start that the development of muscular strength and co-ordination is educational as well as anatomical and will necessarily be tedious. Over-correction is necessary because there will be a slump in converging efficiency after the exercises are discontinued.

Except in presbyopia, incorporation of prisms in the correcting lenses in exophoria is not satisfactory in the long run. An exception to this fact is found in neurotic individuals with only a few degrees of exophoria.

Case 2. Patient complains of usual symptoms of lack of muscular equilibrium.

Examination: Vision normal with following correction: O. D.+0.12=+0.25 x 25; O. S.+0.25=+0.25 x 180. Phorometer showed Exophoria 7°; right hyperphoria 1°; adduction 6°; abduction 13.°. After exercises and gymnastics, adduction 20°, abduction 14°.

As has been the rule in cases of exophoria due to abnormally strong external recti, exercises and incorporation of prisms in the position of rest in her lenses did not relieve the intense "drawing" in the neck and eyes, occasional transitory attacks of diplopia, etc. Therefore I did a complete central tenotomy of the external rectus, reducing the exophoria to 2° where comfort was maintained by occasional periods of exercises.

In any case where there are transitory attacks of diplopia, one is justified in informing the patient in the beginning that nothing short of operation will give them ocular comfort. I have found, however, that an operation is necessary sooner or later in all young adults with 4° or 5° or more of this type of exophoria.

I feel that the proper routine to follow in these conditions, after failure with exercises and other conservative treatment, is to measure the actual turning or version power of the individual muscles with Stephens' tropometer. The normal is outward and inward 48°—53°, upward 33°, downward 50°. If the degree of exophoria is explained by a too strong version of the external rectus and

* Read at the Forty-fourth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1914.

normal version of the internal rectus combined with unusually strong abduction, operation should not be delayed. If the version does not corroborate the duction test, one should suspect a pure co-ordinative factor induced possibly by an error of refraction which has not been revealed by homatropine cycloplegia. In the latter event we should proceed to a complete cycloplegia with atropine. If any additional data is found in the refraction, new glasses should be prescribed. Finally, operation is indicated in the presence of continued symptoms and signs of heterophoria.

All kinds of partial tenotomies, nicking of the tendons and bizarre incisions are recommended. I can understand that occasionally where a neurotic patient with one or two degrees of exophoria becomes worn out with conservative treatment, a partial tenotomy may be all that is necessary. I believe that cramp of the muscles may be permanently relieved by such a procedure, but a persistent exophoria of 4° or more, especially with a strong version, requires a complete tenotomy. It is certainly more satisfactory from the patient's standpoint, and can be kept under complete control by the use of the Maddox rod or phorometer at the time of operation. In fact, I always control the extent of change in muscular version power by the Maddox rod during the operation.

Case 3. A well developed and healthy young woman found it impossible to do any reading and necessary to give up music and all near work on account of vertigo, nausea, headache, etc.

Examination showed: Normal vision with O. D. —1.00=—0.25 x 180; O. S.—0.75=—0.25 x 180. Phorometer 7° left hyperphoria; phorometer 3° exophoria. Tropometer normal for right eye. Left eye upward 50° instead of 33° and downward 45° instead of 50°. The first tenotomy reduced the hyperphoria to 4° after a few months' interval, and a second operation became necessary, after which her symptoms disappeared.

I have found more satisfaction in my operations of heterophorias of the vertical muscles than of the horizontal recti. The symptoms are more intense and the results are more liable to be permanent. Hyperphoria does not respond at all well to exercises, but is helped very much by incorporations of prisms in the glasses if the amount of error is below two or three degrees. One of my cases did very well with the aid of prisms for two years, but as soon as she took a position requiring a trying and unusual position of her head, all her symptoms returned with increased intensity. With the loss of weight and sleep, and her intense headaches, she was soon unfit for any occupation. All was remedied by an operative procedure.

I do not recommend operations on the obliques. Such cases must be corrected by operative or other treatment of the recti.

One must bear in mind the general physical condition of the patient, especially in regard to the nervous system. Unusual strain on the ocular muscles, hysteria, various constitutional states and periods (such as the menopause), may result in ocular spasm and heterophoria. Too great enthusiasm in the treatment of a local condition will therefore occasionally lead to grief, unless we have made an exhaustive search for reflex irritation and depression.

The practice of doing "partial" tenotomies on any considerable percentage of heterophoric eyes shows very poor surgical judgment; and daily treatment of patients in the office with prisms means commercialism of a malignant type.

CONSERVATIVE MANAGEMENT OF THE HANDICAPPED GYNECOLOGICAL PATIENT (ANOCI-ASSOCIATION).*

By THOMAS O. BURGER, M. D., San Diego.

While woman is in many ways superior to man, in endurance, fortitude, and tenacity, yet we know that as a rule her nervous system is more sensitive, her susceptibility to nervous stimuli more acute, shock in her more easily produced and in many other ways she is less stable than man.

Animals are transformers of energy and in the human it is the female that is more acutely activated and reacts to stimuli more easily and profoundly than the male, discharging energy, motor or emotional, more rapidly, also having less power to put on the brakes, or in other words her governor is not so satisfactory as that of her brother. This is as was intended and is no reflection on woman, as her sexual system influences her entire makeup to a great extent. Especially is this so at certain periods of her life, viz.: puberty, menstruation, pregnancy, parturition, and the menopause, all these affecting more or less her nervous system, through or independently of her internal secretions, notably her thyroids, hypophysis and adrenals.

We are all aware of the deleterious effect on the whole, of shock, profound noxious impressions, dread and worry; any or all of these are more serious in their effects on woman than on man; and appear to influence the various glands, especially the thyroid, most profoundly in the female.

Every woman coming as a patient who is below par has more or less disturbance of her nervous system, some much more than others. Also, with possibly a disturbance of her internal secretions, due to past anxiety and other conditions, she is most sure to have a disturbed cardiovascular system, may be hypertension, or if perchance a low vitality or hemorrhages will more often have hypotension. It is this class of women with the low state of resistance, ones easily influenced by noxious impressions, with low blood pressure, subjects that would undergo ordeals badly, stand shock poorly, and are good subjects for permanent neurasthenia that I am especially pleading for in this paper.

To begin with, the diagnostician, be he gynecologist or general man, should be considerate of this class, always on the alert not to add insult to injury in his examination by producing a bad psychological effect, shocking the nerves and ductless glands and still further paving the way for a permanent neurasthenic invalid. Much can often be done in a conservative way to make these

* Read before the San Diego County Medical Society, Sept. 15, 1914.

patients more comfortable if not well, and often the neurologist with his abundance of assuring suggestive therapy can avail more than the ultra gynecologist. This class of women in their low vitality, whose conditions demand surgery, and knowing as they do of their handicapped condition have still more reason to dread surgery as they have known it practiced. Can we offer them an improved process? I answer yes, and not in an untried theory, either. Then if we can truly offer something better, will not more of them submit to what is demanded for life and health? By relieving them of the dread of disaster, as well as the harshness and terrors of the operation, and also assurance that the days following will be less distressing, will they not also be in a much better psychological as well as physical condition to undergo the ordeal?

The improved conservative process and main idea in this paper is Crile's anoci-association, which you are all more or less familiar with. To those of you who have seen Crile work and followed up some of his patients or have carried out the complete plan, it needs no commendation.

The many little details before, during, and following operations done by this plan would more than fill a lengthy paper, so I will only speak of the four cardinal principles used in anoci-association. They are preliminary preparations, nitrous oxide oxygen anesthetic, blocking the area of incision with a local anesthetic, and the use of a prolonged local anesthetic when finishing.

The first principle is to get the patient in a tranquil attitude by assurance, in offering a safer and easier plan, and also giving, hypodermically, morphin 1/6 scopolamin 1/150 gr. one hour before starting gas to get "twilight sleep."

For the second principle, the nitrous oxide and oxygen anesthesia, I will read a paper I prepared and read before the Mid. Tennessee Medical Association two years ago, which is still with very little change my views at present.

"With the present improved operative technic and low mortality, the laity are not so much concerned about the surgery proper as with the being put to sleep and the awful sickness following. It is due them the saving of this if possible, and it is within our power to prevent this unpleasantness, both during and following the administration of anesthetics by the use of nitrous oxide and oxygen. Nitrous oxide and oxygen have unquestionably been proven to be the quickest, safest, most pleasant to take, and of least injury to the patient in after-effects of any known anesthetic.

Nitrous oxide was first administered as an anesthetic by Horace Wells, a dentist of Hartford, Conn., in 1844, and has been used intermittently since, dentists making use of it more frequently than physicians. Therefore, to the dentist we owe more of its perfected technic in administration. To Dr. Crile and the dentist, Dr. Teter, of Cleveland, O., must be given the credit for the prominent place nitrous oxide and oxygen have taken as an anesthetic.

A number of surgeons have made use of it for varying periods of time, and abandoned its use, giving as their reason a number of little hindrances, such as the cumbersomeness of the apparatus for giving, the necessity of a specially trained anesthetist, the cost of the apparatus and cost of gas, and also the fact that a few patients will not take it well, or will not become sufficiently relaxed for some surgical procedures. Another reason—and, to be sure, a good one—is the tendency of surgeons to simplify operative procedures as much as possible. It is a fact that the proper giving of gas involves considerable ceremony or formalities.

Ether is the choice of many of the best surgeons of today, and is a relatively safe and easily administered anesthetic, therefore the one to always be chosen, unless all the requirements for a gas administration are at hand. Ether, given as it is in the larger clinics, by specially trained members of the staff, is used with a very low mortality, but universally with more or less post-anesthetic objections.

ESSENTIALS TO A PROPERLY GIVEN NITROUS OXIDE AND OXYGEN ANESTHESIA.

First. In the giving of any anesthesia an air of confidence is of inestimable worth, and it is certainly very much easier obtained if the patient knows that only gas is to be administered. This confidence not only makes the patient much more easily anesthetized, but lessens the fear, and, as Crile has well shown, eliminates a great deal of actual injury to the brain and nervous system, thus saving the patient much of the nervousness following the operation.

Second. An anesthetist who is thoroughly familiar with the apparatus, the action of the agents used, and one who is interested in this anesthetic.

Third. An improved or modern apparatus with all the attachments, especially the large cylinders and pressure gages, that a steady, continuous flow of both gas and oxygen may be obtained.

Fourth. The giving of morphine and scopolamin about an hour before the beginning of anesthesia.

In our work we have used the Teter apparatus, with all the accessories, in all major surgery, and have found it entirely satisfactory in every instance, though occasionally we do use some ether through the attachment provided for that purpose. However, in a number of the more prolonged laparotomies we never resort to the ether at all. If ether is used in this way, we do not get the unpleasant ether nausea and kidney irritation as when straight ether is used throughout. The warming of the gases for inhalation is obviously of great advantage to the patient, requiring a less amount and less danger of pneumonia or respiratory irritation.

DISADVANTAGES OF OR OBJECTIONS TO THE USE OF NITROUS OXIDE AND OXYGEN.

First. It requires a rather expensive and cumbersome outfit.

Second. Requires a more expert, attentive and specially trained anesthetist.

Third. Is more expensive, costing from $3 to $6 per hour for gas, unless considerable re-breath-

ing is resorted to, which, however, is very desirable in some instances.

Fourth. An occasional failure to get thorough relaxation, and a few idiosyncrasies. One of our cases, an asthmatic, would not go under it until ether was used to get thorough relaxation, after which a difficult hysterectomy was performed with perfect relaxation, using only nitrous oxide and oxygen. Children with obstructed nasal respiration from adenoids have not taken it kindly.

Fifth. It is not the anesthetic of choice unless a trained anesthetist gives it.

ADVANTAGES OVER OTHER ANESTHETICS.

It is unquestionably the safest known anesthetic, if all the requirements are fulfilled.

It is certainly more pleasant to take, as it is free from the excitement of "going under" and in "coming out."

The post-operative nausea and vomiting that it frees the patient from alone, if all other things were equal, should decide in favor of this anesthetic. However, a few will vomit after the operation from the manipulation, the psychic effect, the morphine, and a few from the gas, but this is very infrequent.

Shock is not produced as with ether or chloroform, and Crile states that patients will endure four times more trauma under gas than under ether.

The effect on the blood, as has been shown, is very greatly in favor of this over any other anesthetic, chloroform producing much more destruction of the blood cells and phagocytes, ether next, and gas least, if any at all. That patients are able to withstand more infection and recover more promptly and perfectly after gas than after ether has been demonstrated by scientific observers.

When given with plenty of oxygen, patients may be kept under it longer and recover from it more surely than with ether, even though this is supposed to be an anesthetic for short procedures only. It has been our observation in our own use and at the larger clinics that after a period of ten minutes' administration patients take it more perfectly and it is much more easily controlled.

As before stated, some of the leading surgeons today are using ether as a routine after having tried gas for a while, and the hindrances enumerated are, to our minds, small as compared with the safety and especially the comfort of our patients. We have mentioned Crile more than once. All of us, we think, admit that he has done more for the comfort of the patient than any other living surgeon. However, as he states, it requires much more of the surgeon's energy and time. Crile also shows as low mortality as is seen in any clinics.

Ether given by a trained anesthetist, as is seen at the Mayo's or at Bevan's clinic, is very fascinating, especially after having seen it given by internes or the untrained. Yet the patient is sure to have the post-anesthetic nausea and vomiting, the certain amount of kidney sequelae and more neurasthenia than we have when gas is given. A patient who has once taken ether and remembers the unpleasantness is always a welcome recipient of gas if another operation is to be undergone.

The third cardinal principle in this plan of surgical conservatism is the use of a local anesthetic to prevent any painful or shocking impressions reaching the central nervous system from the traumatized area. To obtain this, as soon as patient is under gas the skin and all other structures to be incised are infiltrated with 1/400 novocain solution. Making pressure over area with hand will cause an immediate effect of the drug. This part should be done as thoroughly as if the operation was being done under a local altogether, to get the best effect. It is admitted that this takes a little time, but time is not such a factor as it is when your process is shocking the patient as with the straight ether method. The solution and syringe can be sterilized as thoroughly as any other instruments or solution and consequently no more danger of infection. Thorough use of this part of the procedure insures relaxation that at one time was held against gas for abdominal work.

The fourth, last and least in importance of these principles is the use of quinine and urea hydrochloride in the edges of wound for its prolonged anesthetic effect, which lasts from 24 to 72 hours. There is a prevalent fear that this drug is dangerous in one way or another, but in quite an extensive use I have no cause to be afraid of it.

Avoid rough handling of tissues, cutting rather than tearing is essential for the patient's well-being, and as before stated I am not going into the minutiae or logic of anoci-association, but approaching it from the angle of the handicapped gynecological patient. In all surgery, even that on the sane, robust man better results and ever so much more comfort are obtained by this method.

One illustration of the beautiful and beneficial results of this over the usual ether method is in cancer of the uterus, where the woman has lost blood heavily; give gas and cauterize cervix, and with cautery proceed as if doing a vaginal hysterectomy, pack with alcohol gauze and the next day complete the hysterectomy by the abdominal route using the full novicanization except where there might be danger of cancer cells being implanted by the needle. By using this plan you can have a two stage procedure that will not be possible on consecutive days in many instances with ether as the anesthetic.

My individual feeling toward this process after more than three years' continued use of nitrous oxide oxygen anesthesia and more than one year's use of the complete anoci-association in all surgical procedures in gynecological and general surgery is well told in the words of Bloodgood of Johns Hopkins, who says, "From my observations I am convinced that any operation performed under this anesthesia (anoci-association) properly carried out will result in less shock, the post operative discomfort and complications will be greatly reduced; the period of disability very much shortened; all this has certainly been accomplished in my own experience. And I think I have convinced my associates, both surgeons and nurses, that this

method has great advantage over ether. I am also convinced that no operating surgeon will come to the same conclusions until he has faithfully given this method a fair trial over a considerable period of time."

To summarize, what can we offer our handicapped gynecological patient demanding surgery? An improved process carrying with it less fear, a more safe and pleasant anesthetic, absence of prolonged unconsciousness and vomiting in practically all cases. Freedom of sequelæ as related to the kidney, lungs, blood and nervous system, meaning *less morbidity* and *less mortality*.

A REPORT ON EHRLICH'S ALDEHYDE TEST FOR UROBILINOGEN.

(From the West Medical Service, Massachusetts General Hospital, Dr. Richard C. Cabot, Chief of Service.)
By OSWALD H. ROBERTSON, M. S., Boston, Mass.

From recent communications on the subject it is apparent that there is still a good deal of uncertainty over the exact significance of urobilinogen in the urine. Some clinicians consider a positive test strong evidence in favor of a pathological condition of the liver; many others find very little value in it as an aid to diagnosis. This same divergence of opinion exists at the Massachusetts General Hospital where the test has been done during the past year on all West Medical cases at admission. Something over one thousand single tests have been made. In order to determine if possible what the test really meant, all cases showing a positive test were collected and classified according to disease process, noting its relation, if any, to possible liver involvement.

As the theories of urobilinogen physiology with their accompanying experimental data have been so thoroughly reviewed by several writers in this country (e. g. by Wilbur and Addis [1], Comer and Roper [2], and Berghausen [3],) they will not be mentioned here. While much work has been done to determine the origin of urobilinogen, there is very little in the literature on the practical value of determining its presence in the urine in routine clinical work. Some men, as for instance Munzer [4], take the extreme view and assert that urobilinogen in the urine indicates actual disease of the liver cells. Others, and they form the great majority, believe that it simply means a diminished functional activity of the liver, which may be caused in many ways. And again, there are a few, as Wilbur and Addis, who consider that in the presence of severe anemias and large hemorrhagic exudates, the liver may have very little to do with the appearance of urobilinogen, i. e. that it may come directly from the breaking down of blood pigments. But just how much weight can be placed on a positive or a negative test in any given case seems very uncertain. Hildebrandt [5], in his last report, states that the test is of little practical value. He does not, however, give any figures.

The following table contains only the cases showing a positive test. Negative tests will be discussed later. The technic employed in doing the tests is practically the same as that described by all who are using it and is given here in detail simply as a control on the accuracy of the conclusions to be drawn from the following series of cases: To 3 or 4 c. c. of fresh urine in a small calibre test-tube, 3 drops of Ehrlich's reagent-dimethylparamidobenzaldehyde are added. A positive test consists of a cherry-red color appearing as a band at the upper part, or diffusely through the urine. The color may appear immediately or in from five to fifteen minutes, depending on the concentration of the urobilinogen present. Stress is laid on the definite cherry-red color; there are shades of yellowish brown, due to pigments in the urine, which may lead to misinterpretation. Again the test must be read by transmitted and not reflected light.

TABLE.

		No. of cases.	
Acute Infectious Processes.	Pneumonia	15	
	Tonsillitis	5	
	Arthritis	3	
	Influenza	1	
	Pharyngitis	1	
	Unknown Cause	1	
		— 26	
Cardiac Disease.	With Decomposition and Passive Congestion of Liver	18	
Liver Disease.	Syphilis	5	
	Malignant	4	
	Gall Stones	3	
	Catarrhal Jaundice	2	} 82
	Cirrhosis	1	
	Myeloid Disease	1	
	Enlarged? cause	1	
		— 17	
Blood Diseases and Conditions.	Primary Anaemia	3	
	Secondary Anaemia	3	
	Banti's Disease	1	
	Malaria	4	
		— 11	
Malignant of abdomen (probably with liver involvement)		6	
Typhoid Fever		3	
Alcoholism (bile in urine)		1	
Tuberculous Peritonitis		2	
Tertiary Syphilis		2	
Duodenal Ulcer		2	
Tuberculous Pleuritis		2	
Cardiac Disease (without decompensation)		1	
Mediastinal Tumor		1	
Pulmonary and Renal Tuberculosis		1	} 18
Empyema (residual)		1	
Ovarian Cyst		1	
Gout and Obesity		1	
Pellagra		1	
Traumatic Neurosis		1	
Addison's Disease		1	
Plumbism		1	
			100

The large bracket includes all those cases, eighty-two out of the one hundred, in which there is considered to be a diminished liver function, brought about either directly or indirectly by the disease process present. Under "direct causes" of hepatic insufficiency may be classed the actual liver diseases, the cases of malignant disease of the abdomen, all of which showed probable liver involvement either by an enlarged liver or bile in the urine, and possibly the case of alcoholism as it showed bile in the urine; twenty-four in all. Under "indirect causes" come conditions not primarily in the liver, i. e., the infectious processes, passively congested livers, the anemias and malaria. In the acute infections comprising the largest single group, a positive reaction can be explained by supposing an injury to liver cells, due to the accompanying toxemia. This is comparable to the judgment that the appearance of casts and blood in the urine in acute febrile conditions is evidence of temporary kidney damage. The three cases of typhoid which cannot be

classed as acute infections are, however, bracketed with those already mentioned, because they represent conditions accompanied by toxemia. Blood diseases and malaria (in which there is considerable breaking down of red cells) are assumed to be related to hepatic insufficiency because we may presume that there is an overloading of the liver with blood pigments. However, these diseases might also be put in a group by themselves as direct causes of a urobilinogenuria in which the liver plays no part. The cardiac cases with passive congestion of the liver are self-explanatory. This second group, positive reactions without organic liver disease, includes fifty-eight cases.

The small bracket contains eighteen cases in which no possible relation to liver involvement could be found. There was no liver enlargement, jaundice, or bile in the urine, nor was there any condition apparent which could produce an increase of circulating urobilinogen. The liver edge was felt in the Addison's disease, but could be accounted for by the extreme emaciation present. In the case of lead poisoning which showed no anemia, there was, however, marked constipation. It is reasonable to suppose that a larger amount of urobilinogen than normal is absorbed from the intestine in cases of marked constipation and certain writers assert that it may appear in the urine in this condition. But the fact that this was *the only positive test* out of a very large number of cases of marked constipation, makes constipation improbable as a cause for urobilinogen in the urine. The toxic action of lead on the liver cells might explain the urobilinogen here, yet the evidence is not strong enough to take the case out of this unexplained group.

We may fairly conclude, I believe, from the table, that eighty-two per cent. of the positive tests were associated with decreased liver function from some cause. But despite these results, certain things must be taken into consideration before any conclusions about the liver can be drawn from a positive test in any given case.

First, general conditions, such as acute infection, blood diseases, and passive congestion of the liver, must be excluded. This comprises fifty-eight per cent. There remain forty-two per cent. of positives, twenty-four of which, or fifty-seven per cent., can be tabulated as indicating actual liver disease, while the remaining eighteen, or forty-three per cent., appear to have no connection whatever with the liver. Where an attempt is being made to differentiate between disease of the liver and disease of some other organ, a positive test indicates liver disease only about sixty per cent. of the time, and therefore, cannot be of much value.

It is impossible to analyze in this way, the two series of cases given by Eustis[6] and Bergharsen because only the diagnoses are given, and in those cases which apparently have no relation to liver function, it is not stated whether there are any signs of liver involvement or not. But grouping them as they are given, the ratio of positive tests in cases of actual liver disease to positive tests in cases having no apparent relation to liver function (pulmonary tuberculosis, chronic nephritis, etc.) is under forty per cent. instead of sixty per cent. in the table above. In this, showing the test is of even less value than in my figures.

In the literature striking differential diagnoses (e. g., a question between gall bladder disease and appendicitis, or gall bladder disease and duodenal ulcer) have been made on a positive urobilinogen test which was borne out by operation or autopsy. But these diagnoses seem to be largely a matter of chance. Even in cases of common duct obstruction, the persistence of a positive test cannot be taken to prove conclusively that the obstruction is incomplete, for in certain liver conditions, demonstrated so well by Fishler[7] in his experiments on dogs with biliary fistulae, urobilin and urobilinogen may be formed in the liver itself. Simon[8] thinks that a positive test is of value in differentiating abdominal symptoms due to an organic cause from those of purely nervous origin, as the latter never gives a positive test.

Of course, we cannot say, of the eighteen cases included in the small bracket, that there was no disturbance of liver function, merely because none of them showed the grosser manifestations of hepatic injury such as jaundice, enlarged liver, etc. But granted that there was disturbed liver function here, would not the great diversity of conditions in this group show that the test was too sensitive for practical purposes?

What is the value of a negative test in helping to exclude liver disease? One way of getting at an answer to this question is to ascertain whether the test is constantly present in a series of cases with a definite organic liver lesion. To this end, fifteen cases of cirrhosis were collected. Out of this number eleven, or seventy-three per cent., showed a positive test. Some of these cases showed at one admission to the wards a positive test, and at the next a negative. In a few, tests were done several days in succession; one day the test would be positive and the next negative without any apparent change in condition of the patient.

This brings in a complicating factor, namely, that one negative test is not conclusive. Apparently the conditions resemble very much certain cases of chronic nephritis in which it is necessary to test the urine repeatedly before evidence of kidney pathology is found. This point, it seems to the writer of considerable importance, has been very little emphasized in the literature. In view of this, it is not unlikely that all the fifteen cases would have shown a positive test at one time or another, had several tests on successive days been done on each.

Fishler[9] says that in his long series of cirrhosis cases he always obtained a positive test. On the contrary various other writers state that the test is not constant in liver conditions such as cirrhosis where one would most expect it. But no one says how many tests were done on each case.

From the comparative infrequency with which bile appears in the urine in such a marked lesion as cirrhosis—only in twenty per cent. of the above series—it is possible that the appearance of urobilinogen, although a much more sensitive test of

liver disorder, still may be subject to the same fluctuations as those governing the appearance of bile in the urine. Again there were in my series a number of cardiac cases with marked passive congestion of the liver which gave negative tests. A good deal of light has been thrown on this subject by the recent work of Wilbur and Addis on the quantitative estimation of urobilin in the urine in certain pathological liver conditions. They found that the output of urobilin varied largely from day to day and even from hour to hour in the same case.

Therefore, from the data given above and from the results of other investigators, a negative test cannot be said to rule out liver disease. The only way to determine this accurately is by doing repeated tests in a large number of cases of actual liver pathology, not only cirrhosis but also malignant disease of the liver, syphilis of the liver, etc., in order to find what proportion give a positive test at some time during their course, and how many negative tests are necessary on the average to exclude the possibility of a positive.

On the strength of the above findings, the test has been discontinued in the routine examination of admission urines on the West Medical Service at the Massachusetts General Hospital.

RESULTS.

It seems fair to draw the following conclusions:

1. A positive test is of very little value on account of the fact that it appears in such a relatively large number of conditions having no apparent relation to liver function.

2. One negative test does not rule out the possibility of a positive test appearing later on.

3. A persistently negative test is of more value than a positive but in view of the lack of clinical data, it cannot be said to exclude a pathological liver condition.

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CONCERNING THE ETIOLOGY AND TREATMENT OF SUPERFLUOUS HAIR.

By GEORGE D. CULVER, M. D., San Francisco.

The question of superfluous hair is important, and there is more to it than eradication alone. Prevention should also be considered, and it is here that the physician with his knowledge of physiology and with the conditions under which hair is stimulated to grow, may give valuable advice that lifts him above being a mere technician. Definite directions may be given in that large class of cases in which constitutional disturbances tend to stimulate the growth of hair. The laity often imagine that the facial creams and ointments used in seborrhea and acne stimulate the growth of hair, when it is really the condition of the skin itself that is responsible for the hypertrichosis. In fact several factors may conjoin to this end. For instance, many of the patients applying for treatment of overgrowth of hair on the face are in early adult life, and therefore at an age when the pilosebaceous system, whether in the male or in the female, is especially active, and then, as before indicated, seborrhea, a condition in which the pilo-sebaceous system is still further stimulated, may also supervene. The etiology of the latter is most intricate. Seborrhea is a condition of the skin dependent for the most part on the action of toxines developed in the alimentary canal. Almost all these toxines are vaso-dilators, and they dilate the blood vessels and stimulate the glandular system of the face, probably in the same way that alcohol does. Certain classes of food also tend to produce seborrhea. For instance, milk fat is a sebeogogue, but sugar is a much stronger one, and alcohol is still more active in this direction. Furthermore, if milk fat and sugar are taken only in normal quantity and the oxygen intake is low, as in sedentary life or in anemia, the fat and sugar are not burnt, but are shunted as fat into the fat repositories, of which one of the greatest is the skin, and there they may give rise to seborrhea. Therefore, adolescence, anemia, gastro-intestinal intoxication, and the ingestion of sebeogogic foods may all conjoin to produce a greasy skin in which the growth of hair is highly stimulated. Sometimes this stimulation is remarkable, and results in a thick, rapidly growing coat of hair. On the scalp this overproduction is regularly followed by a correspondingly rapid fall. On the face the fall is not so apt to occur. It is not, therefore, the facial creams that the patient uses, but the facial oil and its concomitants that the patient herself elaborates, that often conduce to an overgrowth of hair.

One other observation worth recording is that almost all the seborrheics who have an increased growth of hair on the face have congested skins, and frequently hyperidrosis of the palms and soles. The peripheral arterioles are so full that pressure will produce blanching distinctly outlined with reddened borders, the color returning slowly. This congestion is often well marked in the face, and seems to be intimately associated with the seborrhea, and with the stimulation of the growth of hair. This congested skin is a symptom resulting from the action of toxines, probably developed in the alimentary canal, which, as before mentioned, are almost all vasodilators.

Among etiological factors in the production of superfluous hair as given by Baum, are uterine displacement with dysmenorrhea, diabetes, toxemias and seborrhea.[1] He states that associated with hypertrichosis, indican is almost constantly present in the urine. He cites an instance occurring after acute flexion of the uterus, and disappearing after correction with return of normal menstruation, and another instance of the disappearance of superfluous hair from the upper lip and chin of a woman two years after marriage, and after the

birth of a child. I have never seen a case in which I could be positive there had been a spontaneous disappearance of the superfluous hair, but I can readily believe a spontaneous disappearance possible.

Baum's observations are very interesting and well worth careful consideration. Uterine displacement with dysmenorrhea may influence the growth of hair on the face in several ways. Often constipation is a result of the displacement, producing toxemia, which in turn causes seborrhea; all the gastro-intestinal functions may be disturbed through the effect of the displaced uterus upon the sympathetic nervous system; the greater congestion produced in the ovaries may influence faultily their internal secretion, and this in its influence upon the vaso-motor system may stimulate the growth of hair. Just what effect the internal secretion of the ovaries has upon the skin and upon the hair we do not know, but we do know there are many changes brought about in the skin and the hair by disturbances in the internal secretions of the ductless glands, especially the thyroid and the hypophysis.

Diabetes is a complex condition which definitely shows a faulty carbohydrate metabolism. It is quite a common thing to find sugar in the urine of seborrheic patients, either indicative of diabetes or of simple glycosuria. As stated before, sugar, as the type of the most easily assimilable carbohydrates, acts, in excess, as a distinct sebeogogue, and it would have a more marked effect in those patients in whom the carbohydrate metabolism is so imperfect as to permit glycosuria, or in whom there are such pathologic conditions as produce the symptom complex of diabetes.

The toxemias whether of a chronic nature, such as tuberculosis, or of an autotoxic character emanating from the alimentary canal have, as before mentioned, a marked influence upon the vaso-motor system and upon the body envelope in a general way and cause seborrhea.

Recently a young woman, twenty-two years old, came to me with acne and hypertrichosis. Her acne began six months before, at which time she noticed a much greater oiliness of the face and scalp. During the six months, the hair had grown in some places on the face to an inch in length. Her case was interesting because she had refrained strictly from using any facial application, greasy or otherwise, for the sole reason that she always had a dread of hairs on the face. She had formerly led an outdoor life, but for nearly a year had been doing desk work and living in a boarding house. Constipation and gastro-intestinal distubances resulted. Another patient with deep indurated acne, seborrhea of the scalp and marked hypertrichosis, which was rapidly increasing, noticed that as her acne and the perceptible greasiness of the skin disappeared the growth of the hair apparently remained at a standstill. All during her treatment she was using some sort of salve, and she concluded that the salves must be especially useful for stopping the growth of hair on her face. The natural conclusion is that improvement in her general condition, resulting in a disappearance of the seborrhea, was the real cause of the arrest of the growth of hair.

There are instances presenting growths of hair in unusual locations more like features, and in which the light colored hair of early childhood becomes darker as the hair of the scalp becomes darker without any toxic influence. I have in mind the case of a young woman from whose face I removed more than three thousand dark hairs, which were arranged almost like a band or bonnet ribbon, extending from the hair line in front of one ear downward over one cheek, under the chin and upward over the other cheek to the hair line in front of the other ear. There was very little perceptible growth elsewhere on the face. She had a very clear, healthy skin, quite free from any perceptible seborrhea, and she was in excellent physical condition. This is an example of an exceptional case, and many exceptions do not make it less probable that a large majority are associated with disturbances of the physiological functions, and in all probability, as stated before, the chief cause is a toxic stimulation of the pilosebaceous system. The elucidation of the particular case rests in the determination of the cause of the seborrhea in the individual.

CONCERNING THE TREATMENT.

There are many devices employed by women to keep hair from showing on the face. Most commonly the hairs are simply pulled out; some women shave; others use pumice stone; and many use the advertised depilatories. Though the X-ray may be safe in some hands I have never made use of this method of removal, and would strongly advise against its general employment, because of its dangerous nature. Sabouraud recommends a thallium acetate preparation as an ointment.[2] It is too early to determine whether it is a success or failure. I have followed only one case in which it was carefully used for over three months. In this case it failed completely.

We have in electrolysis a safe and successful, though slow, method of obtaining the desired result. Of this method I can speak from a number of years of experience and can recommend it. No doubt, as before stated, poor work in electrolysis is to a great extent responsible for the prevalent idea that the method is not successful. Even, however, if the work is well done, there may be a further growth of the fine hairs that remain. By some it is thought that these hairs are stimulated to growth by the electrical current. This is improbable. It is much more probable that the forces that stimulated the hairs to grow in the first place still continue in operation. These forces, whatever they may be, should, wherever possible, be modified or removed.

TECHNIC.

A wall plate or the horizontal arrangement of a plate on a stand is much more reliable than a portable battery. The circuit can be completed by having the patient hold a sponge attached to the positive pole, or by having his hand in a basin of water in which the positive pole is immersed. One to two milliamperes of current is usually

sufficient, and when the needle is properly placed fifteen to twenty seconds is required for the destruction of the papilla. If destruction is complete the hair will often come out when the needle is withdrawn. It should always be possible to extract the hair with the lightest pull.

I prefer selected bulb-end steel needles of the finer quality. Many of the needles are much too stiff, and the ends are too large. In selecting them I always pick the frail, pliable fine pointed ones. By using a frail needle with a bulb end it will be found difficult to insert it unless it enters the mouth of the follicle, which it should do for the most finished technic. There is less pain, less current is required, and there is less destruction of tissue when the needle tip enters the hair follicle, and follows down along the hair shaft. If the needle is in the follicle it is possible to feel when its end reaches the hair papilla, and it can be held there long enough to destroy the papilla and at the same time do very little damage to the tissues. Do not use a holder that covers most of the needle and exposes only enough to reach the bottom of the average hair follicle, as the hair follicles differ in depth in different individuals, and in different parts of the skin of the same individual. It is also necessary to destroy each papilla separately, and to feel just what is being done. This is why the multiple needle plan is fundamentally ineffective and should never be employed.

Many of the more delicate points in technic have to be acquired through practice, and in this work, as in most other work, the personal equation of the operator must enter. I have found it more comfortable for the patient, to have the current turned on gradually after the needle is inserted. Good bright daylight is the best light in which to work. One can remove two to three hairs per minute according to the location and prominence. Several hairs in close proximity should not be removed at one sitting for fear of causing too much tissue disturbance. Visible pitting after electrolysis is unpardonable.

It is well to use absolute alcohol on the skin as suggested by Baum just before working; and as soon as the sitting is over a thorough application of hot boric acid solution will aid greatly in reducing and preventing inflammation.[3] I find it advisable to prescribe a mild salicylic acid or resorcin salve to be used during the course of treatment:

℞

Resorcin	2.00
Glycerine	2.00
Cerae albae	1.00
Acidi boracici	1.00
Zinci oxidi	5.00
Adipis benzoatae	33.00

Dissolve resorcin in hot glycerine. Melt together the cerae albae and adipis. Triturate other ingredients well and mix.

Sig. Apply once a day well worked in.

An admonition which should be carefully heeded by every operator is never to err by using the positive pole where steel needles are used, as the deposit of pigment which results will remain permanently unless radically removed by curetting. Though one may feel sure one has the needle holder attached to the negative pole one should never neglect to make certain by immersing the needle and the sponge in water, when bubbles of hydrogen gas that collect on the needle show that it is the negative pole.

Someone sometime will recommend a vaccine for the removal of and prevention of the growth of superfluous hair, and though it may not be wholly without reason, it is more reasonable to believe that, as with acne, the removal of the basic toxemia will do more to render the patient immune than will the vaccine.

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A REASONABLE TREATMENT FOR TYPHOID.

By H. A. COLLINGS, M. D., Winters.

Knowing the efficacy of the culture bacillus bulgaricus in colitis colica and the summer diarrheas of both infants and adults I began using it some time ago in the treatment of typhoid and the results are very encouraging. As Anders says (in his Practice of Medicine, 1911, p. 26): "In the vast majority of cases the bacilli are swallowed. In the stomach they meet with the acid gastric secretions, which often destroy them. The alkaline juices of the small intestine, however, furnish every condition necessary for their further growth and development."

And by thoroughly saturating the patient with the culture bacillus bulgaricus you change the normal alkaline state of the bowel to an acid one and inhibit further growth of the ingested typhoid bacilli (if not killing them), thus reducing the severity of the attack in all its symptoms excepting the persistent headache, and does avoid the (1) initial constipation with following diarrhea, (2) extreme prostration, (3) dangerous tympanites, and (4) delirium.

The usual emaciation does not follow, for it is not necessary, after saturation, to keep them on a liquid diet; a small dose of castor oil promptly relieves any discomfort. In fact, one patient, Case III, actually gained weight.

The usual supporting remedies are required—whisky throughout the attack, but strychnine only at rare intervals.

Following are the cases in which I have so satisfactorily used the culture:

Case I. R. G., male, age 10. Saw first time October 1, 1913. Had been treated for two weeks by another physician for malaria. No delirium at any time, severe headache, emaciation, some tympanites, enlarged spleen, pea stools. Widal positive by State Hygienic Laboratory. No nurse, no chart kept.

Treatment: 6 cc. culture bacillus each morning; oleum ricini nightly; strychnine sulphate when

needed; saturated solution magnesium sulphate when needed. Saw patient October 1, 2, 3, 4, 6, 7, 9, 12, 15, 19 and 23 when he was discharged. Condition gradually improved from the first. Temperature 104° on October 1, 2, 3, evening, dropping to 99°, and did not rise above that thereafter. No backache or tympanites after complete saturation October 3. Headache throughout.

Case II. N. C., female, age 9. Saw first time April 21, 1914. Had severe headache for several days previous. Under calomel and magnesium sulphate improved so did not see again till April 28 when an intense icterus had developed, with tympanites, enlarged spleen and pea stools, but no delirium. Widal positive by State Hygienic Laboratory.

Treatment: Initial calomel and magnesium sulphate purge; 6 cc. culture bacillus bulgaricus each morning; strychnine sulphate; acidum nitrohydrochloricum dilutum; bismuth subnitrate and oleum ricini when required. No nurse, no chart kept.

Evening temperature April 28 was 104°; April 29, morning temperature 99°, evening 100°; April 30, morning temperature 98°, evening 99°, and on May 1, 2, 3, 5, 8, when discharged.

Headache persisted throughout, but no backache; stools became normal after May 1. Child sat up in bed from April 30 on and played with dolls. Usual soft diet throughout. Emaciation slight.

Case III. Mrs. L. T. A., age 87. Saw first August 14, 1914, at 9 p. m. Had eaten watermelon at noon followed by severe vomiting and purging early in afternoon. Diagnosed as acute ileo colitis with possible typhoid, and agreed upon in consultation with Dr. E. Z. Hennessy of Napa, August 16. Owing to advanced age was doubtful of typhoid until received report of a positive Widal from State Hygienic Laboratory. Daughter was nurse, kept chart.

Treatment: Initial calomel and magnesium sulphate purge; culture bacillus bulgaricus tablets, two tablets every four hours for one week, three times daily thereafter; whisky and strychnine sulphate when necessary; oleum ricini at intervals.

Diarrhea in beginning checked with opium. Pea stools until saturation August 20, after that one or two movements daily semi-solid, later solid. Diet: Beef tea, malted milk, milk toast, coffee, and broth prior to saturation, subsequently chicken, eggs, venison, rice, toast, malted milk and custards. Delirious only August 19 and 20, trying to get out of bed. Headache persistent throughout, no backache, no tympanites.

This old lady was twenty miles away in the mountains and when I could see her but once daily it was a relief to know she was progressing favorably.

The greatest satisfaction secured by this treatment is the almost total absence of the dangerous tympanites. In none of the three cases named did I have even uncomfortable tympanites much less dangerous. This treatment, I believe, is an answer to the plea of Dr. Lewellys F. Barker, in the discussion of his paper on "The Diet in Typhoid Fever" (*Journal American Medical Association*, September 12, 1914, p. 935). "We rarely see marked tympanites with careful feeding; occasionally, however, we do see it. I hope someone will find out how always to prevent tympanites. Only last week a close friend of mine died from typhoid with tympanites and perforation; temperature 106°. If we could have prevented the tympanites in this case he might have lived. . . ."

And by saturating your patient with the bacillus bulgaricus I believe you can avoid this dangerous tympanites, subsequent perforation and death.

Any of the commercial products of the bacillus bulgaricus are acceptable, the liquid culture being the best.

True I have used this in only three cases, but the wide variance in their ages and the very successful outcome of the last, a woman of 87 years, warrants it being reported (I have searched the literature and find none as old as she), and that an opportunity for its use be given in larger fields where I believe it will prove as satisfactory as it has to me.

URETERAL DEFECT REPAIRED WITH LOOP OF INTESTINE—REPORT OF CASE.

By J. HENRY BARBAT, M. D., San Francisco.

Several papers have recently appeared describing new methods of repairing defects of the ureter, all of which appear to have merit, and should enable the operator to remedy these defects with much more certainty than in the past. There are still many surgeons who prefer to do a nephrectomy than to attempt the repair of a resected ureter. The following case is of interest, because it shows that with proper technic, the intestine may be used to bridge any defect of the ureter between the kidney and the bladder.

Mrs. K., age 30 years, had been operated upon early in 1911 for chronic pelvic inflammation. The operation was extremely difficult and the anatomy much distorted, and the surgeon had the misfortune to include the right ureter in one of the ligatures. Thirteen days later an incision near McBurney's point gave exit to a large amount of bloody urine. This continued to discharge urine, and two weeks later an operation was attempted to repair the severed ureter. It was found that about one and one-half inches of the right ureter was necrosed, and the ends could not be brought together; so a ureteral catheter was passed up through the bladder and into the proximal end of the ureter, and the tissues sewed over it to endeavor to restore the continuity of the ureter. This procedure was not successful, and the urine continued to flow through the abdominal wound.

I saw the patient first on May 27, 1911. Her general condition was fair, she presented a central abdominal scar in very good condition, and a small fistulous opening near McBurney's point, leading directly back three inches, from which clear urine flowed. With indigi-carmine, colored urine appeared almost simultaneously from the left ureter and the fistula, showing the competence of the right kidney. The urine was free from bacteria, and the chemical composition identical with that of the left kidney.

The question arose as to whether the kidney should be removed or conserved. In view of its perfect condition I determined to attempt its conservation, and the following operation was done, according to the technic which I described in the Journal of the American Medical Association August 3, 1901. The patient was prepared by giving hexamethylene tetramine, 10 grains three times a day for six days before the operation, and having the bowels thoroughly cleaned out, administering guaiacol carbonate five grains every four hours for two days before the operation. The bladder and fistula were washed out with 10% borolyptol solution, and the bladder left full. Long right rectus incision. The intestines were found matted together by numerous adhesions which were rapidly cut apart with a scalpel, and the raw places sewed over with fine catgut. The ureter was found and traced down to a mass corresponding to the bottom of the fistula. It was

ligated close to the mass and cut; the proximal end was lifted up and clamped. A loop of ileum seven inches long was isolated from the fecal tract, the continuity of which was restored by joining the cut ends with a Murphy button. Great care was exercised to preserve the blood supply of the isolated loop, and avoid tension on its mesentery throughout the operation. The loop was flushed out with a large amount of 1/1000 formalin solution, and the upper end closed by inversion. The lower end was sewed to a slit in the bladder by means of continuous through and through catgut sutures.

With a von Graeffe knife directed downward, a small oblique puncture was then made in the side of the intestinal wall, one inch from the closed end. The end of the ureter was split in half for a distance of one-third of an inch, and by means of two sutures of verv fine catgut, the split ends were drawn into the lumen of the intestine and firmly anchored. The muscularis and peritoneum of the intestine were drawn over the ureter at the upper part of its emergence from the intestinal puncture. The abdominal wall closed in tiers.

The patient vomited for four days following the operation, and suffered much pain in the right lower quadrant of the abdomen, without any assignable reason. The bowels were moved on the third day without any difficulty. A small amount of urine continued to flow from the old fistula and on the 14th day a new fistula developed in the median scar which did not close until seven months later. I believe that the new fistula was due to leakage at the uretero-intestinal anastomosis, caused by the violent straining when the patient vomited. The Murphy button was passed on the 15th day. Cystoscopic examination three weeks after the operation showed that the right ureter communicated with the old fistula, and permitted some urine to flow backward. This fistula closed three months after the operation. The patient went home after six weeks with both fistulae discharging very small quantities of urine, which caused her very little inconvenience.

Cystoscopic examination on November 12, 1913, shows urine from left ureter sterile, while the urine from the bladder shows colon bacilli and shreds of mucus. The ureteral catheter can be passed up the right ureter for one and a half inches. The cystoscope can not be passed up into the lumen of the intestine, the opening of which appears as a black hole about one-third of an inch in diameter, with a few shreds of mucus hanging from the edges. The mucus particles waved every minute, as though from a current from above. The bladder was not tender and its walls did not show any signs of inflammatory process. The patient has gained 25 pounds since the operation, and is enjoying the best of health. The quantity of urine secreted has been normal throughout the entire time, and with the exception of the mucus shreds and the colon bacilli, is perfectly normal. I have therefore to conclude that the right kidney is functionating normally and has not yet become infected.

The work which I did on dogs in 1900 convinced me that a loop of intestine could be utilized to bridge a gap between the kidney and bladder in case of necessity. The most unpleasant feature is the almost unavoidable colon infection which takes place. In only one dog did I succeed in avoiding this, by prolonged flushing of the intestinal loop with 1/1000 solution of formalin before suturing it in place. If the gap between the bladder and the proximal end of the ureter is not too great, I would be tempted in future to try the method advocated by Carrel and Beck, and utilized by Jianu in doing esophagoplasty. I do not know how long a strip of bladder can be cut out to make a new ureter and still conserve sufficient blood supply, but the bladder wall is certainly the best tissue which can be used as a conduit for urine.

The effect of urine on the intestinal mucosa is scarcely noticeable, it continues to secrete mucus and is not destroyed by the urine. The end of the ureter will remain patulous if the technic which I described above is carried out; as I have demonstrated on a number of dogs and on eight cases of uretero-cystostomy in the human. There is of course great danger of ascending colon infection attacking the kidney when the intestine is used, but so far my patient seems to have evaded it, and as it is now over three years since the operation, there is good reason to believe that she will continue in good health.

TUBERCULAR PERITONITIS.

By W. O. HENRY, M. D., Los Angeles.

Inflammation of the peritoneum is so common and arises from such a variety of causes, that we are not surprised to find that the tubercle bacillus which is so widely prevalent, very often invades the peritoneal cavity and works injury greater or less to the individual as it irritates and inflames the important membrane. The infection may reach the peritoneum through the blood, by way of absorption from tubercular process in the intestine, mesenteric glands, appendix, or through the genito-urinary tract, and in my experience it is much more frequent in women, and apparently spreads from a primary infection about the tubes. While it may be found in patients suffering from a tubercular process going on elsewhere in the body, as pulmonary, intestinal or mesenteric, still it is more often found as a primary trouble whose origin is in the pelvic region, especially occurring in such cases as are at all amenable to treatment.

Clinically we find two forms of tubercular peritonitis, the ascitic, or moist, and the caseating, or dry, and this latter sometimes through the breaking down of these masses, which are at times very large, and produce a cheesy pus, forming pockets of varying size between agglutinated intestinal loops or the adherent omentum, which is frequently also filled with these caseous masses, which adhere to the bowel or to the abdominal walls and form more or less hard tumor-like growths. In fact so large, irregular and firm do they feel upon external examination that they may be, and often are, mistaken for tumors.

In the early stages small tubercles are found scattered over the peritoneal surface of the bowel, bladder, abdominal wall, and in the female over the uterus and tubes. Later these become more grouped, forming larger nodules, and then into masses of varying size by agglutination and adhesion of diseased structures.

Diagnosis. The symptoms of tubercular peritonitis are often obscure, and the diagnosis difficult, especially in the early stage of this disease. In many cases there is chiefly a gradual failing in health, loss of appetite, loss of weight, weakness, slowly coming on, anemia, constipation, and sometimes frequent urination. There may be attacks of diarrhea alternating with constipation. There is generally slight irregular elevations of temperature and pulse with increased frequency, both of which are more marked in the later stages. There may be a gradual development of ascites, and there is likely to be abdominal pain at intervals, with tenderness upon pressure, and when the nodules are large enough, lumps and irregular masses are found upon manipulation. If there has been a personal or family history of tuberculosis it will aid in the

diagnosis. In some cases, a rectal or vaginal examination will show small nodules or tubercles on the uterus or other structure in the pelvis. There is no leukocytosis and the blood findings are those of anemia. The Von Pirquet, or other tubercular test is positive.

Prognosis. The final outcome of these cases depends upon how early the diagnosis is made, the general condition of the patient aside from the local peritoneal trouble, and finally upon the prompt and efficient use of the well-known means to be used in curing the patient. In other words under fair and reasonable conditions the prognosis may be said to be good in a large proportion of cases.

Treatment. It is a very interesting and noteworthy fact that so great a pathologist and surgeon as the late Prof. Fenger a short time before his death said that tubercular peritonitis is a disease for the internist to treat and does not belong to the surgeon, while only a few months later, after the great surgeon's death, Dr. Frank Billings of Chicago, the noted internist, came out in a public statement and said that tubercular peritonitis was a surgical disease and did not belong to the class of cases to be treated by the medical man or internist. Even now the profession is not wholly agreed upon the treatment in all cases. However, it is recognized by all that a good proportion of cases not amenable to relief or cure by medicine, are curable by operative procedures. If the disease be recognized early, no doubt but open air, rest, good diet, tuberculin, and in some cases change of climate to mountains or sea shore will be curative in many cases which later will not yield to this treatment. As a matter of fact so many cases are not recognized early, that but a small number are really suitable for this treatment alone, but must have surgical means applied which may profitably be followed by the above.

Allow me to cite briefly the following cases which illustrate this disease:

Case 1. Mrs. C., age 35 years. Complained of a loss of appetite, general run-down condition, steadily growing weaker, with slight fever, occasional chills, some abdominal pain. Careful examination revealed a tubercular peritonitis probably starting in the region of the tubes. She was put to bed, given as vigorous internal treatment as possible, and nourishing diet, but steadily grew worse instead of better, when an abdominal section with the removal of the tubes and ovaries was done, after which she steadily improved, and remained quite well. When I heard from her last some ten years later there was no evidence of any return of the trouble.

Case 2. Mrs. C., age 28, mother of three children, had tubercular peritonitis with considerable ascites. Here the same operation was done which resulted in a prompt and apparently permanent cure.

Case 3. Mrs. L., mother of several children, was a comparative invalid for several years. This case occurred in my earlier experience with these troubles. In fact it was in 1895 when I first saw her. I found she had a retroflexed uterus with tubercular involvement of the tubes and ovaries, one side being much more diseased than the other. Here I simply opened the abdomen, removed the tube and ovary most seriously affected, and suspended the uterus. I found the small intestines, the uterine body, the tubes and the ovaries and the abdominal wall widely and extensively covered with the tubercles, but feeling satisfied with the removal of the worst point of infection, and fixing up the uterus, I then closed the abdomen, after which the patient made a very satisfactory recovery and went home in April, 1895. She gained in flesh and weight, but still complained of considerable pain, especially backache. In December she returned for further examination on account of a good deal of pain in her back. And fearing that the work had not been radical enough I again opened the abdomen and did a more radical operation. It was interesting to see how much improvement there had been in the appearance of the peritoneum since the operation in April. The tubercles had almost entirely, though not quite, disappeared and there had been a steady improvement so far as the general appearance was concerned in the peritoneal cavity. I now removed the other tube and ovary, after which she made a steady improvement until she had quite regained her health, and at last accounts, some years after this operation, was still quite well.

Case 4. Mrs. J. had tubercular peritonitis, suffered from nausea, vomiting, chills and fever. Temperature as high as 102°, pulse 140 at times. Here the tubes and ovaries were found to be the chief seat of infection and were removed. Patient made a satisfactory improvement, and temperature came down to normal. She left the hospital apparently well. I have not had the privilege of following this case through and do not know the ultimate outcome.

Case 5. Miss M., age 26 years, had suffered for years from stomach trouble, pain, nausea, vomiting, sometimes vomiting blood, which she and her physicians thought due to ulceration of the stomach. She came to me in 1898 with the report that since May of that year she had been unable to take any solid food, and for ten days or two weeks had lived upon nutrient enemata. Found tubercular peritonitis with retroflexed uterus and tubercular tubes. Removed tubes and ovaries, after which she gradually improved, and went home Dec. 14th in very good condition. In April of the following year she began to have some stomach trouble again, when examination revealed a retroflexed and tender uterus, probably the cause of the vomiting, and which probably prevented entire recovery from the tubercular condition in the pelvic cavity. Therefore May 10, 1899, by clamps and ligature I removed the uterus, after which the patient reacted nicely and went home in very good condition July 10th. From this time on she had no further trouble.

My experience since that time has taught me that the first operation should have been more radical and thus I might have avoided the second operation.

Case 6. Mrs. W., age about 30. Had been married several years, but had never been pregnant, and for several months past had been gradually failing in health. She had some fever, pain, tenderness over the abdomen, and as she became more emaciated and weakened there was a gradual enlargement of the abdomen, evidently due to ascites, until when I saw her she was just able to walk across the room with the assistance of two friends, but so greatly was she distended that she was unable to lie down, and was unable to eat very much of anything, and was therefore in a very critical condition. She had a tubercular peritonitis with ascites. Upon opening the abdomen there must have been three gallons of fluid escaped, and the entire cavity with all the organs were pretty well covered with tubercular masses, and the pelvis was quite filled with these masses, which broke down very easily and could be scooped out with the hand very freely. The tubes and ovaries were removed with all the broken down mass which could be evacuated with them. The abdominal cavity was well dried, and the adhesive points in the pelvis from which the tubercular tumors were removed were wiped out with pure carbolic acid, the wound carefully closed, and the patient put to bed. After a few days she was put upon quinine and guiacol every three hours. She was of course put upon nourishing diet and made a very satisfactory recovery. Six months later she seemed to be entirely well. As well in fact as she had ever been. She so remained for nearly three years. In September,

1906, a little more than three years after the previous operation, she came to me for what appeared to be obstruction of the bowels. She was in good flesh, good color, had no fever, and was in excellent condition until this apparent obstruction came on a few days before. Various means were used to get the bowels moved, but without avail. After repeated consultations, and after every effort proved futile, it was decided to open the abdomen and see just where the trouble was. By this time the woman had grown very weak, and upon opening the abdomen there was no evidence of tubercular deposit anywhere, unless the condition I am about to describe was tubercular in character, but the small nodules and tubercular process that had formerly covered the bowel and peritoneum of the abdominal wall had entirely disappeared. But the mesocolon had enlarged to about the size of one's big finger, and had contracted so much that there was very little mobility for the colon which apparently was the cause of the obstinate constipation. The operation of course did no good in this case, and the woman died within the next two days. This is the most remarkable case that has fallen under my observation.

These are only a few of the many cases I have seen, and all except one have been subjected to operative procedure, and all but one have at least apparently recovered in full from the operation, and from the tubercular condition.

Mauclaire in reviewing his own experience in forty-one cases, comparing them with the record of operative treatment by others, says the evidence shows the great progress realized from surgical measures in tuberculous processes in the digestive tract and peritoneum in the last twenty years, but the responsibility for the success of operative measures rests on the attending physician's diagnosis of the process in time. A writer says some recent statistics report 50% of the patients cured while Kullner's lowest figures show after three years' interval 26% cured of twenty-nine patients with the ascitic form, and 10% with the form without effusion.

Another writer says that "Yeo and other medical observers have reported large series of cases treated by non-surgical measures which also showed a recovery rate of nearly or quite 50%. It is probable, as pointed out by Oschner, that the majority of the cases treated surgically were more advanced, and had resisted treatment by purely hygienic and medical measures, and, therefore, the two classes could not with propriety be compared. The consensus of opinion at present is that all early cases should have the advantage of careful hygienic and medical treatment for a reasonable period. If not improved, they should be treated by laparotomy.

William J. Mayo strongly recommends a search for and removal of the primary focus, which, in a large number of cases, will be found in the fallopian tubes or appendix. A failure to remove this, in his opinion, is responsible for many cases of relapse.

Caird describes four types: 1. Exudative form. 2 Exudative form with adhesions. 3. Dry form. 4. Any form in which the peritoneal cavity is practically obliterated or tubercle has invaded the bowel coat. The operation practiced in all cases was simple laparotomy. An attempt was made to find and remove any prominent forms, and on a few occasions diseased tubes and ovaries were removed. Twenty-eight of the 31 cases recovered from the operation. Of the 18 cases that could be followed, nine died after varying intervals; eight are well, dating from periods of one to nine years after operation.

Without going further into details I may say that whilst I do not pretend to explain the manner in which operation cures these cases, yet I feel justified in recommending it as a rule, especially where treatment upon approved lines does not afford prompt relief. My conclusions then are the following:

First. Tubercular peritonitis is not a very uncommon disease, but occurs most frequently in women, and whilst it may originate from many sources, it seems to be most common in origin about the tubes as the primary seat of infection.

Second. Symptoms are more or less obscure and indefinite, especially in the early stages, and the diagnosis is made oftentimes by exclusion.

Third. There are the two varieties, or the moist and the dry, and heredity may have a predisposing influence in the development of both.

Fourth. The prognosis is fairly good if proper treatment can be given in reasonable time.

Fifth. Treatment may be either medical, hygienic and climatic; or operative, followed by the former.

Sixth. Proper operative treatment should include not only opening the abdominal cavity, but also the removal as far as possible of the original point of infection, as appendix, tubes and ovaries, and thoroughly drying the cavity, and touching up freely with pure carbolic acid all broken down suppurating points, and also removing as much as possible of useless and broken down tissue.

Seventh. Drainage is seldom required, but if there has been much ascites, a large abdominal pad should be applied and a firm bandage should make suitable pressure to prevent the fluid accumulating again, and thus also assist in reabsorption of such fluid as may recur.

COMPOUND FRACTURE OF BOTH FEMURS WITH EXTENSIVE LACERATION OF SOFT PARTS.

By T. W. HUNTINGTON, M. D., San Francisco, and ALVIN POWELL, M. D., Oakland.

This case seems to be worthy of a place in surgical literature, in that it illustrates several important points in the treatment of open fractures, and accentuates, very sharply, at least two or three serious hazards attending such injuries.

Patient: F. K., age, 25 years. Carpenter in the employ of the Western Pacific Railway. Family history, previous history, and habits, unimportant.

On September 12, 1913, at 5:30 p. m., patient was thrown through the open door of a bunk-car, while the train was moving at the rate of fifteen miles per hour. The brakes were suddenly set and the car, in which he was riding, collided with the car preceding it.

There is no evidence that the car wheels passed over either thigh. It seems probable that his injuries were caused by direct violence. He sustained compound fractures of both femurs; the right being extensively comminuted.

There was free hemorrhage from both limbs. He was taken, at once, to the Portola Hospital, a distance of twenty-five miles, where Dr. Bennett packed the wounds and placed him in bed. The same evening, he was taken to the Merritt Hospital in Oakland, having been encased in a double plaster of Paris spica. He arrived at the Merritt Hospital at 8:00 a. m., September 13, 1913, in the service of Dr. Alvin Powell, local surgeon.

He was suffering greatly from shock and loss of blood. The wounds were irrigated and cleansed externally, and the patient allowed to rest from the 13th to the 15th of September, during which time, he rallied somewhat from shock and his condition seemed more hopeful.

I saw the patient in consultation with Dr. Powell on the morning of September 15th and examined him carefully under an anesthetic. The original cast was removed and the wounds irrigated. On inspection, it was found that the skin wounds were on the anterior interior surface of the thighs.

The wounds gaped and soft tissues protruded. The muscles of both thighs were extensively lacerated and divided. This was specially true of the anterior muscles of the thigh where they were literally torn across. The entire musculature of both thighs was in a most deplorable condition.

Both femoral arteries seemed to be intact and at this time there was no active hemorrhage. The immediate need in the case was for dependent drainage. Accordingly, free counter-incisions were made to insure adequate escape for fluids. Open cavities were thoroughly cleansed and packed with camphor-phenol gauze. It was found that the right femur had been comminuted, very extensively; the left broken across and maintained the ordinary position of femoral fragments with the fracture line near the middle.

It seemed that the left limb was in far better condition than the right. The patient was, then, placed in bed and dressed with voluminous gauze and cotton pads. Traction apparatus was applied to both lower limbs and eight or ten pounds weight attached.

On September 18th, patient complained of severe pain in the left limb, demanding anodynes. Temperature, 101°. On the 19th of September, there being manifest evidence of tension along the inner side of the left thigh, Dr. Powell freely opened the upper and interior femoral area, again establishing free drainage and a considerable amount of blood clot and tissue detritus was removed and the wound again packed.

During the following two days, the patient's condition was unsatisfactory. Hemoglobin remained at about 50. Red blood count, 2,800,000. A loud systolic murmur was heard at the apex and an ice bag applied over the heart. Laboratory reports showed a pure culture of colon bacillus.

On the 22nd of September, the wounds were, again, irrigated and a boric acid pack applied. On September 23rd, patient had a fair day and night, though he was slightly irrational. The wounds were looking well and the discharge was much less. Infection seemed to be of a mild type.

On September 24th, the heart sounds were fairly normal. Had a fair night and the outlook was altogether favorable. Continued in favorable condition during September 25th. On September 26th, had a slight hemorrhage from the left thigh, but lost very little blood. On the 27th of September, condition was still more favorable. On the afternoon of the 28th, had a severe hemorrhage from the inner side of the left thigh. An Esmarch was applied immediately, and within the next one-half hour, Dr. Powell ligated the left femoral artery. At this time, he was nearly exsanguinated.

In spite of the free use of normal saline, he died seven hours after the operation. Post-mortem examination revealed the fact that the left femoral artery was eroded and split for one and one-quarter inches in the lower part of the wound.

Résumé: A young, robust man. Open fractures of both femora. Extensive comminution of one. Ghastly injuries of soft parts of both thighs. Division and disintegration of musculature. Free initial hemorrhage. Primary infection. Removal of patient from place of accident to an emergency hospital, twenty-five miles distant. Second removal, two hundred miles, to another hospital. Administration of ether on three different occasions.

Patient survived for fifteen days, at which time, the wounds were granulating, infection was well under control, and there was a good prospect for recovery. At this point, there was a sudden fatality from hemorrhage from the femoral artery.

The points to which attention is especially directed are, as follows:

(a) In the presence of very grave injuries involving multiple fractures, with separation and attrition of soft parts plus initial infection, there is reasonable hope under ordinary circumstances of ultimate recovery.

(b) That the control of infection demands ample provision for drainage through liberal counter incisions, application of antiseptic solutions and packing of cavities with camphor-phenol gauze.

(c) That such fractures should be dressed loosely. Tension through tight bandages and splints, such as plaster of paris, should be avoided. Gentle traction will provide, temporarily, for adequate adjustment of bony fragments.

(d) Secondary hemorrhage should be anticipated and at the first warning, a tourniquette should be adjusted so as to be applied instantly, if required.

Finally, when possible, full provision for transfusion should be made. Appliances should be at hand and this measure undertaken as soon as the bleeding vessel is ligated.

Had we succeeded in avoiding the final disaster in this case, it seems probable that a satisfactory result would have been attained in the left and, possibly, in the right leg.

THE ADVENT OF CHINESE DOCTORS INTO CALIFORNIA.

By J. F. GIBBON, M. D., San Francisco.

Some forty years ago two white men wanting to make money conceived the idea of employing a shrewd Chinaman (he subsequently proved shrewd all right!) to play doctor at a salary of $100 per month. The Chinaman's name was Li Po Tai.

A store was rented on the corner of Washington street and Washington alley, opposite Brenham place, opposite the northeast corner of the Plaza. The store was decorated with Chinese flags and mysterious hieroglyphics, etc. In the rear part of the store was a Chinaman cooking the herb tea. In the front part of the store was a large square table, on it was a fancy cushion and beside it sat the great Chinese Doctor Li Po Tai from China, who cures all diseases with herb tea only, consultation free, ready for business, his white employers working the town on the outside telling of the wonderful cures the great Chinese Dr. Li Po Tai was effecting with herb tea, "consultation free."

When the sick man or woman called for free consultation, Dr. Li Po Tai would put on a large pair of spectacles, look wise, tell the patient to place the back of the hand on the cushion, feel the pulse or pretend to look at the tongue, study the case and say liver and kidney disease, or no blood in the heart, and would cure with herb tea for $10 a week, to be paid in advance, which was always the case.

The patient must come to the office to drink the tea. The trick was to have all come to the office so all could see the immense practice the doctor had. The scheme worked all right and money came in fast and the practice of the great Chinese doctor increased rapidly for many months.

Li Po Tai found out he was making a great deal of money for his white employers so he discharged himself from them and continued in practice for his own benefit and got wealthy at it.

He put his patients on a diet, cutting out all things causing the trouble, giving nature a chance to right itself and effecting the cure, and the great Dr. Li Po Tai got the credit of it. Li Po Tai made money rapidly and invested some of it in Chinatown property. He bought a piece of property on the corner of Clay street and Brenham place, where he resided.

He knew absolutely nothing of anatomy or the circulation of the blood. Not necessary for the great Chinese doctor to know anything about it.

I had a complete articulated skeleton hanging in my office. A Chinaman cleaning in the office and seeing it asked me if he could bring his friend in to look at it. I said bring him in. He brought him and he looked it all over and pointed to the ribs and said, "Too many bones." I asked him "How many?" He said, "Twelve instead of twenty-four in all." I learned from the Chinaman that his friend was the great Dr. Li Po Tai.

Later on his residence took fire and he came very near being burned to death. He called in the late Doctor James Murphy, who succeeded in saving his life. Some time after I was riding in a Kearny-street car. I noticed sitting in the corner of it a repulsive looking Chinaman, his face covered with deep scars. A man told me he was Dr. Li Po Tai, who came near being burned to death.

Years after he sickened and died. His funeral was the largest that ever took place in San Francisco, over 300 carriages, two hearses, four horses, each covered with white flynets, two white bands of music, 40 pieces each, together with several Chinese bands. The funeral services were held in the Plaza, taking up nearly all of it. The funeral started, taking in all of the streets of Chinatown and out Bush street to Laurel Hill Cemetery, where the remains were deposited in the vault for shipment to China.

Other shrewd Chinamen, learning of Li Po Tai's success, tried their hand at the game, and it worked so well that Chinese doctors sprang up all over the coast and into the adjoining states and territories and continued ever since.

On one occasion two men called at my office to consult me. One asked me to examine him. I did so and gave him my opinion of his case and told him what I could do for him. He said his friend in the adjoining room had liver disease. I said, "Send him in for examination." I examined him carefully and told him there was nothing the matter with him and he needed no medicine. Both left and said they would call again. Next day the first man called and said he would undergo my treatment, and did so. In a few weeks of treatment he got well. He told me that he had been under Dr. Li Po Tai's treatment for twenty weeks at $10 per week and paid him $200. Hearing that Li Po Tai was a fraud, he took his well friend to Li Po Tai for free consultation and the Doctor told him that he had liver and kidney disease and would cure him with herb tea for $10 a week. That let the twenty weeks' man out with $200 worth of experience.

When a Chinese gets sick he goes to the Chinese drug store and calls for the remedy by lottery. The lottery box is handed to him. He puts his hand into it and draws the name of the remedy, hands it to the druggist, gets it and takes it to cure him. Now for the remedies. Dried powdered snakes and lizards, wasps' nests, scraping of deer's horns, herb teas, hundreds of years old, pills the size of marbles with hieroglyphics on them.

The Chinese highbinder, before the commencement of a Tong war, eats wildcat meat to make him "fight brave." When the wildcats get scarce, they pay as high as fifty dollars for one. In the past, when a sick Chinese got incurable, his countrymen put him in a subcellar with a bowl of water and some rice, to live as long as he could on it, which was not very long.

Fancy white sick men and women going to a Chinese sanitarium to drink herb tea with a pinch of powdered dried snake or lizard thrown into it!

The Chinese sanitariums and free consultation doctors are run by white men as in the days of Li Po Tai, that is, the few of them that are left.

A CASE OF ACUTE PANCREATITIS WITH AN ACCOMPANYING PSEUDO-CYST.*

By H. A. L. RYFKOGEL, M. D., F. A. C. S., and G. H. TAUBLES, M. D., San Francisco.

The following case history is presented on account of its several interesting features.

The patient, a woman of 44 years, weighing about 200 pounds, was admitted to my service in the City and County Hospital on January 22, 1914, in a condition of stupor, from which, however, she could be easily aroused. She was then able to answer simple questions as to her condition but several days elapsed before it was possible to get a clear account of her previous history.

When first seen she was evidently suffering from severe abdominal pain; her muscles were so rigid and her tenderness was so great that it was not possible to palpate the abdominal contents; her pulse was weak and ran 132 per minute; she had a temperature of 103.5° F.; her leukocytes numbered 24,000 per c. mm. and urine removed per catheter showed a trace of albumen but no other easily demonstrable change.

On account of the absence of history and localizing symptoms and poor condition of the patient operative treatment was postponed and she was stimulated and given large quantities of water. Her condition rapidly improved and although her leukocyte count remained about the same, her temperature fell to 100° F.

Her tenderness and rigidity gradually became localized to the left hypochondriac region and by the fourth day a mass about the size of a child's head could be palpated in this area. Pressure after the method of Murphy showed another but somewhat less tender area in the region of the gall-bladder.

Examination of the heart and lungs showed no special lesion, there was no adenopathy and no light was thrown on the symptoms by laboratory examinations of the feces and gastric contents.

She was now able to give her previous history, which ran as follows:

Born in Kentucky of a healthy father and a tuberculous mother, she had all the usual diseases

* Read before the San Francisco County Medical Society, May 19, 1913.

that afflict neglected children and in her early adult life suffered from acute multiple arthritis—rheumatic fever as she called it—malaria, yellow fever and dysentery, but through some unexplained good fortune never had typhoid fever. At twenty-five she had a Cesarian section and, since the wound suppurated, she remained in the hospital almost two years. During the next twelve years she remained in good health.

At the age of forty-two she began to suffer from pain in the upper abdomen and distressing accumulations of gas in the stomach. The pains usually came on suddenly and most frequently at night but bore no relation whatever to the time of eating nor to the character or quantity of the food. During this period the patient had several chills which were followed by fever. At one time, several months ago, she had an attack in which the pain was excruciating and prolonged and accompanied by collapse and later fever. Finally, six days before admission, and just after an attack of colic and mild jaundice, she had an attack of pain so severe that she became unconscious. When consciousness was regained she was in a cold and clammy sweat and had to take to her bed. The pain was throughout the abdomen and remained so until her admission. Two days before she came to the hospital she had a severe chill followed by a heavy sweat. During this time her physician had been unable to produce catharsis and finally, as her symptoms continued, sent her to the hospital with the diagnosis of appendicitis and bowel obstruction. In the hospital the colon was readily emptied by repeated enemas.

The study of the foregoing history and symptoms readily led to a diagnosis of cholelithiasis with adhesions binding the gall bladder to the pylorus. It was also considered probable that at the time of pain and collapse, months before, she suffered from a perforation of the gall bladder and a resulting localized peritonitis.

The present attack was thought to be possibly due to an acute pancreatitis but the differentiation from a possible infected pancreatic cyst could not be made. The history seemed to clearly rule out any possibility of that type of perforating gastric ulcer which is accompanied by a tumor mass composed of inflammatory tissue.

Six days after the patient came under my care her condition was sufficiently favorable to warrant an operation which was thereupon performed with the following findings:

On opening the abdomen, numerous recent adhesions between the parietal peritoneum and the stomach, omentum and colon had to be separated and while this was being done there was a sudden gush of clear serous fluid, perhaps five hundred cubic centimeters in amount, from a pocket about three inches to the left of the middle line. The tumor at once disappeared and examination of the walls of the cavity showed them to be lined by the peritoneal coatings of the stomach and gastro-colic and greater omenta. No change was noticeable in the peritoneal lining other than numerous areas of fatty necrosis. The tail of the pancreas, as felt through the overlying structures, was enlarged to two or three times its normal diameter and formed a mass about six by ten centimeters in size. The head was only slightly enlarged. The cavity of the lesser omentum seemed to be obliterated at this point. The fat of the abdominal wall and that of the omenta showed numerous areas of fat necrosis varying in diameter from a couple of millimeters to a centimeter, and more numerous in the neighborhood of the pseudo-cyst than elsewhere. The pancreas was not incised nor directly exposed and therefore we do not know whether or not there was any hemorrhage into its substance.

The gall-bladder was next exposed and found embedded in a dense mass of adhesions which fixed it to the pylorus and to the right border of the greater omentum. No evidence of recent inflammation was found but, at the point of densest adhesion of the omentum, there was opened a small cavity about the size of a pigeon's egg containing a dark greenish substance—evidently inspissated bile. No present communication with the gall-bladder could be demonstrated although the dense scar of the old perforation could be plainly seen. The gall-bladder wall was but slightly thickened and contained clear bile and eight stones of varying sizes. No stones were found in the common duct and the foramen of Winslow was patent. The gall bladder was drained in the usual manner and a cigarette drain was led to the bottom of the pseudo-cyst.

The patient made a relatively uneventful recovery and at the end of a month left the hospital free of the gastric and other symptoms of which she had been complaining during the past two years.

Having just given the clinical history of this interesting patient may I be permitted to reconstruct the pathologic history, if such is may be called.

Two years or more ago she developed cholecystitis and as a result concretions developed in the gall-bladder. She had recurrent attacks of this affection and a consequent localized peritonitis soon caused adhesions to the surrounding structures and as the pylorus was also involved and fixed the characteristic inability of the stomach to empty itself of swallowed air became apparent and with the reflex hypochlorhydria seen in gallstone disease accounted for the patient's dyspeptic symptoms. During the course of the disease, possibly as a result of pressure from a stone, there developed an ulcer which perforated and caused the transient but very severe symptoms of some months ago.

Just before the illness, for which she came to us, a stone became impacted in the common duct long enough to produce pain and slight jaundice. The subsequent progress of the calculus is of course not so clear, but the widespread progress of the fat necrosis as compared with the relatively slight acute pancreatitis suggests that at first it blocked the duct of Wirsung as well as the choledochus in such a fashion as not to permit the flow of bile into the former and to cause a damming back of pancreatic secretion and its diffusion through the lymphatics into the surrounding tissue, thus producing, as Opie has shown by his experiments on cats, necrosis of the fat cells.

The calculus now passed on and was for a very short period blocked in the ampulla of Vater, the pancreatic duct was no longer direct-occluded and bile not being able to flow into the duodenum was forced into the pancreatic duct and directly or indirectly produced an acute pancreatitis. Of course it is quite possible that the first point of lodgment of the stone may have been in the ampulla and the fat necrosis may have been produced by the pancreatitis alone, but I feel sure that it was too extensive to be thus accounted for.

A mild peritonitis evidently occurred at the same time as the pancreatitis and was probably secondary thereto. It produced extensive adhesions that partially obliterated the lesser peritoneal sac and caused a pocketing of serous fluid in front of the gastro-colic omentum. These mild inflammations of the peritoneum are occasionally seen in acute pancreatitis, even when not of the hemor-

rhagic type, but the encysted accumulations of fluid have usually occurred in the lesser peritoneal cavity as a result of the blocking of the foramen of Winslow and have here been termed pseudo-pancreatic cysts though they are in no sense true cysts but rather accumulations of fluid in a pre-existing cavity.

In our case there was, of course, no cyst at all but instead only a collection of fluid walled off by adhesions, but since it clinically suggested a cyst and occurred in a region where and in a disease in which cysts are frequently seen, we have taken the liberty of terming it a pseudo-cyst.

PROCEEDINGS OF THE SAN FRANCISCO COUNTY MEDICAL SOCIETY.

During the month of December, 1914, the following meetings were held in the Library of the Society:

SECTION ON MEDICINE, TUESDAY, DECEMBER 1ST.

1. The Occurrence of Heart Block in Acute Diseases. H. W. Allen.
2. Two Cases of Heart Block. J. B. Frankenheimer. Discussed by W. Ophüls and R. Brooke.
3. The Etiology of Aortic Insufficiency. E. C. Dickson. Discussed by H. P. Hill, W. Ophüls, R. L. Wilbur, L. Schmitt, W. F. Cheney, J. Rosenstirn, G. W. Hartman and H. R. Oliver

ANNUAL MEETING, TUESDAY, DECEMBER 8TH.

Tuberculosis Osteomyelitis of the Upper End of the Femur. T. W. Huntington. Discussed by J. T. Watkins, H. M. Sherman, L. Ely, C. C. Crane, C. F. Welty, C. G. Kenyon, C. J. McChesney, W. I. Baldwin and G. H. Taubles.

The Presidential Address and reports of officers follow:

PRESIDENT'S ADDRESS.

By ARTHUR A. O'NEILL, M. D.

The speaker believes it to be the duty of the retiring President to give the society over which he has had the honor of presiding the result of his observations of the organization and its practical working, what it has, and what it may, accomplish. The society is to be congratulated upon the fact, in spite of the adverse financial conditions which prevailed during the year that has just closed, it has enjoyed a normal increase in membership and no diminution of its revenues.

At the outset the criticism I have to offer is that we are top heavy, we have too many directors. Think of a directorate of twenty-one members for a body of less than six hundred. A moment's thought will show that we have more directors in this association than there are supervisors to run the municipality of San Francisco. The absurdity of this feature of our body is so striking that I deem further comment unnecessary. But to emphasize this criticism I have but to add that six constitutes a quorum and that on more occasions than one it has been necessary to await the arrival of a belated director in order to transact the buisness of the meeting.

To rectify this anomalous state of affairs I would strongly urge that the society be controlled by a board of governors, to consist of five members, who are to hold office for five years, one to be elected each year. On organization the length of each term to be determined by drawing lots. It should be stipulated that no governor be eligible for the presidency, and that all questions involving the policy of the society should be submitted to the body at large for final action.

By having a governing board of this character we could abolish most of our standing committees such as those on admissions, finance, medical ethics, etc. This measure is in keeping with all up to date organizations and is practically the commission form of government. As an example of obtaining action under the present ponderous system I would cite to you that it has taken quite a year's time to have installed the much-needed improvements in the lighting and ventilating systems in these rooms.

Since my election my dominant idea has been to enlarge the scope of the society's activities so that it might become more of a power in the community, and I have assumed that the society has a threefold function,

1. To the individual member.
2. To the profession at large.
3. To the general public.

A review of the year's work shows that there has been a marked improvement over the past under these headings.

A recent writer has stated that "medical men acquire knowledge in three ways, from examination of patients; from their reading; from association with other physicians." It was the idea of the speaker when he advocated the division of the society into sections that the president should preside at all section meetings and in that way outline a definite policy, that sectional work be correlated, and that a subject in medicine could be considered from every standpoint. It is to be hoped that some such plan will be carried out. The presentation of a large number of admirably worked up cases shows that the demonstration of patients is becoming more popular with the members, and with proper encouragement will be a great aid from an educational standpoint.

The section meetings tend to the bringing of the men into closer contact, to brush off the feeling of aloofness, to encourage discussion, and the little social gatherings after the sessions enable all to become better acquainted. That the society is not derelict in furnishing reading matter in the shape of current medical literature is shown by the many additions to the library during the past year. The library under its present very able management has proved of such benefit to the profession that it should be granted the most liberal support.

It would be well to consider if it were not possible to have a general meeting once a quarter to which the public could be invited and subjects pertaining to public health discussed. The education of the public in matters medical is to my mind a duty of the society and the co-operation of the allied professions, such as sanitary engineers, actuaries, architects, should be sought.

Under the second caption it is a paramount duty of the society to support the State Board of Medical Examiners, to aid them in every way possible. Every two years rumors are rife that laws pertaining to medical practice will be repealed and the state thrown wide open to all classes of practitioners good, bad, and indifferent. To endeavor to legislate against people who have been educated at inferior colleges is to my mind like cutting down a tree by lopping off its branches instead of destroying it at the root. An earnest endeavor should be made to effect a repeal of the law which, at present, permits of five men with the sum of fifty dollars to incorporate a medical college. The enactment of a law that would compel all applicants for charters for medical schools to submit the application to the Regents of the State University for their approval, before articles of incorporation are issued would, in a very effective manner, prevent the establishment of illy equipped schools.

I wish in a very special manner to commend the excellent work of the Committee on Public Health. Under their very energetic chairman they have accomplished much good. Conferences between them and the health authorities were frequent and of mutual benefit to the society and public. I would suggest that they devote their energies to the establishment of a municipal laboratory for the manufacture of diphtheria antitoxin. This substance, of such potent value as a prophylactic as well as a therapeutic agent, should be provided free of cost to all patients and their contacts. In addition to the humanitarian principle involved it would soon prove its worth from an economic standpoint. I would like to see this society take the initiative in this work. No one will gainsay the enormous advantages to medical science of thorough study of pathological changes produced by disease. But how often are our efforts defeated by hospital authorities who take refuge behind the present law which forbids the use of a body for "dissection." "In Bellevue not long ago less than 50% of the cases that went to autopsy were diagnosed correctly, and presumably these cases had all the advantages of the complete facilities of a great hospital for diagnosis." This observation would no doubt apply with equal force to any hospital in our fair city. The law should be so amended that a medical attendant could be empowered to perform a necropsy on the body of any person dying in a public institution.

An investigation by the Philadelphia County Medical Society of the 16 largest hospitals in that city revealed the fact that 31% of the hospitals visited showed that the records were kept in such a way that they were absolutely useless for scientific purposes. I feel sure that if this society were to investigate the hospitals of San Francisco on the matter of clinical records the same deplorable condition would obtain. There is no reason in the world why an endeavor should not be made by this body to bring about a uniform system of records so that they could be accessible to any number of the profession engaged in research work. This society could be of inestimable aid to those in charge of public hospitals if it would aid them in obtaining apparatus necessary for the scientific investigation of the phenomena of disease.

The conjoint meeting of the Bar Association with the society, their hearty co-operation with us in the endeavor to improve the status of the medical expert witness, resulted in much good as it served to bring about a better understanding between the two professions and may serve through suitable legislation to bring about a much-needed reform and thus remove from us the stigma of the biased medical witness.

Let us then leave the beaten tracks, be not content with academic discussion of purely medical subjects, but broaden our horizon and be what my hope has been that the society should be—a power for good in the community.

REPORT OF THE SECRETARY-TREASURER.

Mr. President and Members:

As Secretary, I beg leave to submit the following report for 1914, that is, from December 8th, 1913, to December 7th, 1914.

The total number of members for whom we have paid assessments to the State Society is 597, as compared with 589 of last year.

It may be of interest as a matter of record to note the following:

In	1907	the membership	was	498
	1908	" "	"	482
	1909	" "	"	482
	1910	" "	"	476
	1911	" "	"	548
	1912	" "	"	556
	1913	" "	"	589
	1914	" "	"	597

It will be seen that our membership is very slowly increasing, in spite of our being obliged to continually weed out members who do not pay their dues.

In Los Angeles, however, there is a constant campaign for new members, this being carried on by the individual members of the Society, with a success that should put you all to shame. I would again urge renewed efforts along these lines.

NON-PAYMENT OF DUES.

Under date of April 15th, 1914, seven men were dropped from membership, and their assessments were not paid to the State Society. We paid assessments to the State Society at the beginning of the year for nineteen men, in the belief that they would pay us as in the past—slowly but surely—but who have not as yet done so. They are herewith declared dropped from the membership roll, only to be reinstated upon payment of $1.00 in addition to the amount already due. To two other members who are delinquent, the Board of Directors on March 3d granted extension of time.

SCIENTIFIC MEETINGS.

I would again like to call attention to the fact that but few men comply with the rule of posting

their papers in the Society 10 days preceding the meeting at which they are to be read. As we stated last year, even those who prefer to talk without notes would greatly oblige their confrères, and encourage intelligent discussion, if they would give a syllabus of their remarks (not to exceed 10 lines) which would be published in the program. In those cases where papers were posted, the speakers were rewarded by unusually excellent discussions and commented upon them to me. In no cases were papers criticized or authors attacked in the manner apparently feared by some who hesitated to post their papers because of that possibility. We repeat: we would be only too glad to publish in the program a syllabus in every instance.

In accordance with the wishes of the Finance Committee and the Secretary, and as approved by the Board of Directors, a certified public accountant has gone over the accounts of the Society, and a report for the first six months of 1914 has been filed by the accountant. The books have not as yet been examined for the last six months. In the report of the accountant, it will be seen that all the accounts for the first six months have been proven correct. In the above mentioned report, attention is called to the length of time which elapsed before the semi-annual bond interest was deposited in the bank, namely, some three months. This is an occurrence which can hardly be avoided, owing to the fact that the bonds are in the safe deposit and that it is necessary for the President and Secretary to go there together. Not only this, but presidents are elected every year and the retiring as well as the new president must go with the Secretary on the first occasion that coupons are to be clipped. In the second instance, i. e., for the semi-annual interest, only two men are to be gotten together. In view of this fact, it would be a distinct improvement if the President were relieved of this arduous duty, it being the only one in which money is involved in which he is at all concerned during his term of office. We further believe it would be far better if the Secretary too were relieved of this task and his responsibility be assumed by the Executive Secretary, who, after all, holds office permanently, is under bonds (the amount of which could be very well raised to cover any likelihood of loss), the Society, of course, paying the premiums on the bonds as heretofore. With the Executive Secretary, either the Chairman of the Finance Committee or his certified accountant could carry out these duties.

The detailed financial statement follows:

STATEMENT UP TO DECEMBER 8th, 1914.

Bal. on hand Dec. 10, 1913		$ 675.51
Receipts:		
Dues	7961.35	
Repaym't of loan State Soc	1015.00	
Interest on bonds—		
5 Pac. Tel. & Tel		
5 Spring Valley Water..	450.00	
Rent of Library, Milk Com., phones, repayment on binding ,etc..	66.25	
		$10,168.11
Disbursements:		
Library:		
Binding	$ 437.30	
Subscriptions and supplies	789.65	
One-half State Journal rent in lieu exchanges	180.00	
Rent	1200.00	
Salaries	1300.00	
Printing and stationery	654.90	
Telephone	103.80	
Kohler & Chase (rental of hall three times)	45.00	
Towel service	18.00	
Water and sanitary cups	34.75	
Rental of chairs	8.00	
Moving picture expense	32.50	
Medical Soc. Calif. (Assess. on 597 members)	3582.00	
Dues to Chamber of Com..	60.00	
Physicians' Relief Fund	322.00	
Typewriter for Library	85.05	
Committee on Necrology	10.00	
Auditor for accounts—Jan. to July, 1914	25.00	
Sundries	68.86	
Christmas present Butler Bldg. employees (1913)	10.00	
Secretary's salary (1913)	200.00	
		$ 9,166.81
Balance Dec. 8, 1914		$ 1,001.30

The following amount (approximate), bills for which are not yet received, will have to be paid by December 31st:

Foreign Journals (1914)	$ 600.00	
December printing (ballots, return envelopes and programs) about	45.00	
Telephone	10.00	
Water and towel service	3.00	
Xmas present, Butler Bldg. employees	10.00	
		$ 668.00
Approximate surplus		$ 333.30

In other words, if we were to go out of business on December 1st, 1914, after paying all our bills we would have a balance of $333.30.

Following the Secretary's suggestion, the Board of Directors at its meeting on February 3d, authorized the appointing of the Executive and Assistant Executive Secretary to do the work of the office and library. Mrs. Sargent was thereupon appointed by the Secretary to the office of Executive Secretary, with power to appoint her Assistant. Their services, greatly increased during the year by virtue of the Secretary depending more and more upon them, have been not only absolutely satisfactory, but are worthy of special praise, espe-

cially because of the great interest displayed by them in the conduct of their office.

A number of matters called to the attention of the Secretary have been taken up by him independently at various times. One of interest to many members was in regard to the traffic ordinance controlling the parking of automobiles in Union Square. The mayor as well as the members of the traffic squad were interviewed by the Secretary, and a ruling obtained permitting physicians to place their cars around certain parts of Union Square, most of the vehicles for rent being closely herded on Geary street. Quite recently, and unknown to any members of the Society, a new ordinance was passed, permitting the standing of public vehicles at the north side of Geary between Stockton and Powell and on the west side of Stockton between Geary and Post. It states that "No public vehicles shall be allowed to stand in these places unless the owner has first obtained a permit from the Chief of Police; such permits shall be limited to 35 at one time." This new ruling is working hardship to a number of physicians with offices on Union Square, and the matter is again to be taken up with the Board of Supervisors.

Respectfully submitted,
RENÉ BINE, Secretary.

REPORT OF THE LIBRARIAN.

To the President and Members of the San Francisco County Medical Society.

Gentlemen:

The progress of the Library in the past year has been satisfactory. We have been especially gratified to note the number of members who have given books to our files and hope that it may increase. Our limited income is expended wholly in keeping up our journals so that we are unable to acquire single books and monographs, except as they are given us by members or come in exchange for reviews from the STATE JOURNAL.

The services of the Assistant Librarian are being called on for bibliographical work with increasing frequency. We would urge members to be as accurate and explicit as possible when they send in references for verification or lists of subjects on which they wish to get literature. A whole afternoon is often spent in a futile search for a wrong reference.

We have pursued the policy of keeping our files and shelves open to everybody. This makes it much easier for a man who does not know exactly where to lay his hand on a subject to look over the general literature. It has the great disadvantage that it is impossible to control loss. We would urge members not to abstract books and journals from the Library without entering them at the Library desk. Our losses have been considerable and it has cost us much time, trouble and money to replace volumes lost from sets.

We have improved the Library by the addition of a new stack, and by an efficient system of lighting, a suggestion for which we have to thank our President, Dr. O'Neill.

During the past year we have purchased:

For the completion of files	33	vols.
Received—		
From the California State Journal of medicine	115	vols.
By gift	59	vols.
Library Exchange	2	vols.
Bound	414	vols.
Total	623	vols.

We are receiving regularly 202 journals, and have added 11 new ones to our list.

Our actual disbursements have been:

For binding	$437.30	
Domestic subscriptions and incidentals	125.33	
	$562.63	$ 562.63

In addition to this, we have paid for purchases made last year but paid for this year:

Foreign journals (1913)	$518.87	
New Stack	70.50	
Century Dictionary	76.95	
	$664.32	$ 664.32
Total		$1226.95

In the Library drawer, collected from fines, telephones, etc., there are $22.45.

Respectfully submitted,
LEO ELOESSER, Librarian.

REPORT OF THE COMMITTEE ON NECROLOGY.

It having been the will of Almighty God to take from us one of our esteemed and younger members, Dr. G. Burton Turner, we submit the following:

Dr. Turner was born in Micanopy, Florida, November 6th, 1886. His early education was in the grammar and high schools of Indianapolis, Indiana. He took his collegiate course at the Northwestern University, Chicago, Ill., where he received the gold key during his junior year. Upon his graduation he was appointed to serve on the staff of Saint Luke's Hospital, Chicago, for two years.

When he left Saint Luke's Hospital it was to accept a position as Assistant Surgeon on the Surgical Staff of the Northwestern Pacific R. R. Company, which position he held with credit until his death, September 19th, 1914.

Dr. Turner leaves a father and a sister, and was a nephew of Dr. Gustav J. Bergener of this city.

Dr. Turner was a member of the following societies and fraternities: County and State Medical Societies and American Medical Association, Pacific Coast Association of R. R. Surgeons, Medical Fraternity Phi Rho Sigma, Literary Fraternity Phi Delta Theta, and honorary member of Alpha Omega Alpha.

Dr. Turner was known to us only to be loved and respected. His future was exceedingly bright, having achieved in the short time while in his

chosen profession, a position to be envied by many. A. MILES TAYLOR.

COMBINED MEETING OF TKE SECTIONS ON SURGERY AND UROLOGY, TUESDAY, DECEMBER 15th.

1. Resection of the Acromioclavicular Joint; Demonstration of Patient. Sol Hyman.

2. Demonstration: Removal of a Papilloma of the Bladder with Operating Cystoscope. Henry Meyer.

3. Demonstration of Case. M. P. Carpenter, 32 yrs. of age. Admitted to County Hospital December 15th with an enormous carcinoma of the cheek, neck and jaws. Twelve yrs. ago he had received X-ray treatments for a period of five weeks, for what were probably tuberculous glands of the neck. He does not remember the exact number of exposures given. Microscopic section shows squamous cell carcinoma.

4. Pitfalls in the Diagnosis of Surgical Renal Lesions, with demonstration of specimens and plates. M. Krotoszyner. Discussed by W. P. Willard and J. Rosenstirn.

SECTION ON EYE, EAR, NOSE AND THROAT, TUESDAY, DECEMBER 22d.

1. Demonstration of Cases:
   - A. Barany Conservative Radical Operation. Henry Horn.
   - B. Case of Ludwig's Angina. M. W. Fredrick.
   - C. Two Cases of Cataract—Smith Operation. A. S. Green.
   - D. Optic Atrophy (one sided) in girl of 15; etiology not known.
     Congenital Staphyloma of Both Optic Nerves. Hans Barkan.

Discussed by E. D. Shortlidge and O. Tobriner.

2. The Smith-Indian Cataract Operation in the Light of Scientific Investigation. A. S. Green. Discussed by K. Pischel, V. Hulen and H. Barkan.

BOOK REVIEWS

A Medical Dictionary For Nurses. By Amy Elizabeth Pope: 8 vo., cloth; pp. 288 + v. Illustrated. 1914. (G. P. Putnam's Sons, New York and London, Publishers. Price, $1.00.)

This book like others by the same authoress is handy, practical and sensible. The words and terms contained in it are defined in an explanatory and encyclopedic way. In addition to the dictionary the book contains a list of abbreviations, a table of chemical elements, notes on poisons and a number of useful numerical tables. L. E.

The Philosophy of Radio-Activity. Eugene Coleman Savage, M. D. (Published by Jenkins Co., New York, 1914.)

A book of 140 pages in which the author constantly juggles with such delightfully definite terms as the "Great Elusive Something that Changes," "Associative Force," "Explosive Secret," "Fenced Infinity," "Matter Invested with Compressed Duration," etc. He apparently attempts to explain malignancy as resulting from some slight variations in the action of the "Great Elusive Something that Changes" and concludes with the following statement: "We may say that the ultra material is the cause which orders the Associative Force and marks the Eternal Constants; and tendencies of unerring sureness and justice are retained in the non-material reservoirs of the cosmos."

The day of this type of philosophical treatises on medical subjects has long since passed and such a book adds nothing to medical knowledge or medical progress. W. W. B.

Diseases of the Skin, Including the Acute Eruptive Fevers. By Frank Crozer Knowles, M. D., Instructor in Dermatology in the University of Pennsylvania; Clinical Professor of Dermatology, Women's Medical College of Pennsylvania; Fellow of the College of Physicians of Philadelphia, etc. Octavo, 546 pages, with 199 engravings and 14 plates. Cloth, $4.00, net. (Lea & Febiger, Publishers, Philadelphia and New York, 1914.)

The author has produced a convenient handbook for students and general practitioners covering the various cutaneous and mucous membrane eruptions (including the exanthemata). It has been possible to condense the work within 526 pages by a judicious arrangement of the subject matter and by saving much space that is usually devoted to references. The writer has drawn largely from his extensive experience in the large Philadelphia clinics and from a broad knowledge of the literature up to date. The numerous black and white illustrations are excellent and the subject matter is instructive and well arranged. H. E. A.

A Text-book of Medical Diagnosis. By James M. Anders, M. D., Professor of the Theory and Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College of Philadelphia and L. Napoleon Boston, M. D., Professor of Physical Diagnosis, Medico-Chirurgical College, Philadelphia. Second edition thoroughly revised. Octavo of 1248 pages, 500 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, $6.00 net; half morocco, $7.50 net.

This edition, printed in June, 1914, contains 1193 pages of text. It is made up of eight main divi-

sions comprising diseases of the various systems and those due to animal parasites. One is impressed with the large number of facts given under each disease, but as they are well arranged, and are grouped under subheadings in heavy type, reading is easy, as is reference to any particular feature of the disease. Each disease has the following subdivisions, which are particularly pleasing: Pathological Definition, Varieties, Predisposing and Exciting Factors, Physical Signs, Laboratory Diagnosis, Clinical Picture, an Illustrative Case, finished with a Summary, and in many cases a table of Differential Diagnosis. For example, the several anemias and leukemias are contrasted side by side at the end of their descriptions. Probably the most pleasing feature is the wealth of good illustrations. They consist of photographic reproductions, line drawings, and colored plates. There are six full-page reproductions of motion pictures of the gait, etc., of such diseases as tabes, paralysis agitans, etc. A section is given to X-ray plates, reproductions and their interpretation in connection with each disease where radiograms are useful. Pulse tracings and electrocardiograms are illustrated and explained. The use of and findings with the esophagoscope and gastroscope are gone into at length.

On the whole, one feels that the authors have tried to cover too great a field in one volume, but the book certainly is of great value to the busy general practitioner. E. H. C.

The Principles and Practice of Gynecology. For Students and Practitioners. By E. C. Dudley, A. M., M. D., Professor of Gynecology in the Northwestern University Medical School, Chicago. Sixth Edition, thoroughly revised. Octavo, 795 pages, with 439 illustrations, of which many are in colors, and 24 full-page plates. Cloth, $5.00, net. Lea & Febiger, publishers, Philadelphia and New York, 1913.

The sixth edition of this deservedly popular text-book adheres closely in form to the preceding editions and is admirably brought up to date. A healthy conservatism is evident throughout. The illustrations are numerous and very good. The author is to be congratulated on confining his text to the subject in hand without invading the field of general abdominal surgery. However, the desire to restrain the volume to handbook size has caused the work to assume a sense of brevity that will restrict it chiefly for use as a student's text-book and for this useful field it is very well suited. It is especially to be recommended for the following features: Sound treatment, fully described; pathology well discussed; differential diagnosis exhaustively treated; and finally, that personal note that the experienced teacher introduces which serves to impress the student much more than the mere cataloging of facts. G. H. T.

Collected Papers by the Staff of St. Mary's Hospital (Mayo Clinic) for 1913. Octavo of 819 pages, 335 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, $5.50 net.

This collection of reports is presented in the same form as in the preceding volumes. The book is clearly printed and well illustrated; the microphotographs are especially good. The drawings and photographs are for the most part new.

The list of contributors contains 28 names, some of which appear for the first time.

The papers are grouped under five general headings: (1) Alimentary Canal; (2) Ductless Glands; (3) Head, Trunk and Extremities; (4) Technic; (5) General Papers. The alimentary canal receives more extensive consideration than any of the other subjects. Duodenal and gastric ulcer and carcinoma are the chief topics of interest. They are presented from a clinical, operative and pathological point of view. The striking relation of gastric ulcer to carcinoma is again emphasized. The evidence presented is quite convincing.

Among other things, lesions of the breast are considered in the section on urinogenital organs. Here, just complaint is made about the number of conflicting and overlapping terms applied to diseases of the breast. A tabulated list of 147 names is given; 12 of these being applied to one condition (chronic cystic mastitis). This superabundance of terms is accounted for by lack of clinical knowledge on the part of the pathologist, and lack of pathological knowledge on the part of the clinician. Instead of relieving this congestion new terms are added to this already cumbersome list.

The section on ductless glands is devoted entirely to thyroid. The conclusions are drawn from clinical, experimental and pathological observations, the least important of which is the experimental. There is described a definite pathological basis for the clinical variations in diseases of the thyroid, so that from the pathological data the clinical stage of the thyroid disease can be told with 80 per cent. accuracy. This section is especially well illustrated by micro-photographs.

The section on technic is devoted largely to anesthesia. Here Miss Florence Henderson (R. N.), remarks that "nitrous oxid is an inefficient surgical anesthetic at best." At the same time she emphasizes that ether is the only reliable anesthetic. In the light of favorable reports on nitrous oxid from other large clinics, one wonders if her remarks are not prompted by lack of experience with nitrous oxid.

The section on head, trunk and extremities includes a variety of topics. The discussion of cervical rib is especially valuable, as the author reports 31 cases, giving detailed case reports. It is an unusual opportunity for one individual to observe so many cases.

As indicated by the title, this book is a collection of papers. Many of the articles are excellent, others are equally poor. The only excuse for the appearance of some of the latter is to make a complete collection of all reports from the Mayo Clinic. They contain nothing new, no case reports and are merely a reiteration of other articles. This repetition interferes greatly with the pleasure of reading the book. J. P. P.

A Text-Book of Military Hygiene and Sanitation. By Frank R. Keefer, M. D., Lieutenant-Colonel, Medical Corps, United States Army; Professor of Military Hygiene, United States Military Academy, West Point. 12mo of 305 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, $1.50 net.

In the preparation of a text-book on any subject it is essential that conciseness, thoroughness and simplicity be so blended, that the most obtuse reader could readily absorb the author's standpoint. This book of Colonel Keefer's combines in an excellent degree these three qualifications. It is well paragraphed, making it easy for the instructor to assign a subject and to insist upon the student giving a definite, intelligent answer. For instance, the question of "Infection and Immunity" is found by the student on pages 60 and 61 in a paragraph of one hundred and fifty words, covering without any superfluous phrases a complete résumé of these important conditions and made plain by five small descriptive illustrations.

A personal acquaintance with Colonel Keefer leads me to expect that no small detail, bearing on a subject under discussion, would be overlooked. In this I was not disappointed, for, judging from the advice given upon how to properly sweep a room, stress is laid on the care of the corners, "as the middle of the floor will take care of itself."

His statement regarding the indifference to sanitary regulations of the average American volunteer is borne out by my own experience, and if we

should ever be engaged in a campaign of any magnitude I am sure this book, if properly studied and followed by our volunteer line officers, will be the means of saving many valuable lives.

I think that the book should be read by those who are placed in charge of lumber, mining and railroad construction camps. Also by Boy Scout leaders; for that matter, by any person who intends living out of doors for some length of time.

It is full of information concerning the best way of caring for oneself under these conditions and its teachings have been thoroughly tested and worked out by competent medical men who have specialized in this line.

The last chapters in the book treat on the use of alcoholics and the venereal disease problem. Colonel Keefer has had the opportunity of studying these questions first hand and gives a scientific, broad and practical discussion, free from the cant and hyperbole one finds in many of the recent articles on these subjects. G. H. R.

The Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volume III, Number 5. Octavo of 190 pages, 61 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Published bimonthly. Price per year: Paper, $8.00; cloth, $12.00.

Contents:

Murphy's Clinical Talks on Surgical and General Diagnosis.

Traumatic Epilepsy.

Epithelioma of Glans Penis—Amputation.

Carcinoma of the Corona Penis with Metastasis in the Inguinal Glands.

Fecal Fistula.

Old Inversion Fracture of the Ankle. Open Reduction. Extra-Articular Nailing of the Fragments.

Inversion Fracture of the Ankle Treated as a Pott's Fracture By an Adduction Dressing.

Old Inversion Fracture of the Left Ankle Treated as a Pott's Fracture.

Old Pott's Fracture.

Removal of Nail from the Right Tibia and Os Calcis.

A Recent Report from an Old Case of Knee Arthroplasty.

Arthroplasty of the Knee for Bony Ankylosis.

Arthroplasty of the Elbow for Complete Bony Ankylosis Between the Humerus and Ulna in a Position of Complete Extension.

Hypertrophy of the Middle Lobe of the Prostate. Urinary Retention. Prostatectomy.

Imperforate Anus.

The Use of Radium and the X-Rays in the Treatment of Cancer.

DEPARTMENT OF PHARMACY AND CHEMISTRY.

Edited by FRED I. LACKENBACH.

Since the publication of New and Nonofficial Remedies, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

PASTEUR ANTIRABIC VACCINE.—The virus is prepared according to the method of the Hygienic Laboratory, Washington, D. C. A dose is sent by mail each day. Twenty-one to twenty-five doses constitute a treatment. Laboratory of W. T. McDougall, Kansas City, Kansas.

SOLUTION PITUITARY EXTRACT.—A solution of a purified extract of the posterior lobe of the pituitary gland of the ox. It is assayed so that 1 c.c. represents 0.2 gm. fresh gland. It is used by hypodermic or intramuscular injection mainly to stimulate the uterus contraction in labor. It is supplied in the form of ampules containing 1 c.c. solution Pituitary extract. The H. K. Mulford Co., Philadelphia, Pa. (Jour. A. M. A., Dec. 5, 1914, p. 2043.)

ARBUTIN, Merck.—This brand of Arbutin has been accepted for inclusion with New and Nonofficial Remedies. Merck & Co., New York.

CUPRIC APPLICATORS (Copper Sulphate 20-25 per cent.).—Wooden sticks 6½ inches long tipped with a mixture of copper sulphate, alum and potassium nitrate, containing 20 to 25 per cent. copper sulphate. Antiseptic Supply Co., New York (Jour. A. M. A., December 26, 1914, p. 2290).

RADIUM SALTS.

RADIUM BROMIDE.—The market supply is a mixture of radium bromide and barium bromide and is sold on the basis of its radium content. It is sold for use in applicators, inhalatoriums and injection solutions. Radium bromide is marketed as:

RADIUM BROMIDE, Radium Company of America.—All deliveries are made subject to the test of the U. S. Bureau of Standards or any reputable expert designated by the purchaser. The Radium Company of America, Sellersville, Pa.

RADIUM BROMIDE, Standard Chemical Co.—Sold by the Radium Chemical Co., Pittsburg, Pa. (Jour. A. M. A., December 26, 1914, p. 2289).

RADIUM CARBONATE.—The market supply is usually a mixture of radium carbonate and barium carbonate and is sold on the basis of its radium content. It is sold for use in applicators. Radium carbonate is marketed as:

RADIUM CARBONATE, Standard Chemical Co.—Sold by the Radium Chemical Co., Pittsburg, Pa. (Jour. A. M. A., December 26, 1914, p. 2289).

RADIUM CHLORIDE, Radium Co. of America.—This form of radium chloride has been accepted for inclusion with New and Nonofficial Remedies. Radium Co. of America, Sellersville, Pa.

RADIUM SULPHATE, Radium Co. of America.—This form of radium sulphate has been accepted for inclusion with New and Nonofficial Remedies. Radium Co. of America, Sellersville, Pa. (Jour. A. M. A., Dec. 26, 1914, p. 2290).

BETUL-OL.—Betul-ol is a methyl salicylate preparation advertised by E. Fougera & Co., New York, to physicians and indirectly to the public, as an external analgesic and anti-rheumatic. It was refused recognition by the Council on Pharmacy and Chemistry because the statements regarding its composition are vague, misleading and incorrect, because unwarranted therapeutic claims are made for it, because the recommendations are likely to lead the public to the self-treatment of rheumatism, with serious consequences (Jour. A. M. A., Dec. 12, 1914, p. 2149).

CYSTOGEN, CYSTOGEN-APERIENT AND CYSTOGEN-LITHIA.—Cystogen is the therapeutically suggestive name applied to hexamethylenamin, by the Cystogen Chemical Company, St. Louis, Mo. By means of extravagant claims, unwarranted assertions and pseudo-scientific arguments the Cystogen Chemical Company advises the use of Cystogen. Aperient or Cystogen-Lithia or all three in a well nigh endless number of diseases. The promoters take good care that every Cystogen prescription is likely to spread the Cystogen gospel among the people. In announcing the rejection of these products the Council on Pharmacy and Chemistry calls attention to the conservative discussion of hexamethylenamin which appears in its publication "Useful Drugs" (Jour. A. M. A., Dec. 12, 1914, p. 2149).

ERGOAPIOL.—Ergoapiol (Martin H. Smith Co., New York) is a mixture put up in capsules, each of which is said to contain Apiol (Special M. H. S.) 5 gr., Ergotin 1 gr., Oil Savin ½ gr., Aloin ⅛ gr. Examination indicated that each capsule did not contain 5 gr. apiol but an oleoresin of parsley seed. The recommendations in the advertising matter invite its indiscrimate use. The Council on Pharmacy and Chemistry refused to

recognize this unscientific mixture of ingredients which has widely differing therapeutic effects (Jour. A. M. A., December 12, 1914, p. 2149).

GASTROGEN TABLETS.—These tablets, recommended by the Bristol-Myers Co., New York, to be used in connection with its other nostrum, Sal Hepatica, are said to contain pepsin, calcium carbonate, calcium phosphate and "aromatics." As patients who need an antacid do not need pepsin and vice versa the preparation is unscientific and the therapeutic claims made for it unwarranted. Gastrogen tablets were refused recognition by the Council on Pharmacy and Chemistry (Jour. A. M. A., Dec. 12, 1914, p. 2149).

IODALIA.—Iodalia (Geo. J. Wallau, Inc.) is claimed to be a valuable substitute for iodides. Examination in the A. M. A. Chemical Laboratory indicated that when administered it would act like ordinary iodides and that to obtain the equivalent of 20 gr. potassium iodide it would be necessary to give the contents of a one dollar bottle of Iodalia. Particularly reprehensible among the many unwarranted claims made is one which suggests to the public that Iodalia will protect against infectious diseases. The Council voted that Iodalia be refused recognition (Jour. A. M. A., Dec. 12, 1914, p. 2149).

IODOTONE.—Eimer and Amend, who market Iodotone, state that it is a glycerin solution of hydrogen iodide, containing 1 gr. iodin to each fluidram. While Iodotone must act like ordinary iodides and while nearly one ounce of glycerin must be swallowed to obtain the equivalent of 10 gr. potassium iodide, the unwarranted claims are made that Iodotone is superior to iodides. Because of misleading claims and because the name Iodotone is likely to suggest its use as a general tonic, Iodotone was refused recognition by the Council on Pharmacy and Chemistry (Jour. A. M. A., Dec. 12, 1914, p. 2149).

NOURRY WINE.—This wine, sold by E. Fougera & Co., is said to contain 12 per cent. alcohol and 1½ gr. iodin to the fluidounce in combination with tannin. Examination in the A. M. A. Chemical Laboratory showed that its action would be that of ordinary iodid and that the non-production of iodism is due to the small amount of iodin it contains. Claims are made which are prone to lead to its use both by the profession and the public in conditions in which effective medication is called for. The Council on Pharmacy and Chemistry refused recognition to Nourry Wine (Jour. A. M. A., Dec. 13, 1914, p. 2150).

WARNER'S SAFE REMEDY.—"Warner's Safe Remedy for the Kidneys and Liver and Bright's Disease" is reported by the A. M. A. Chemical Laboratory to contain alcohol, by volume, 14.40 per cent., glycerin, by weight, 7.72 per cent., potassium nitrate 1.75 per cent. and vegetable extractives. This preparation consists essentially of alcohol and potassium nitrate. Alcohol is contra-indicated in inflammatory diseases of the kidneys and potassium nitrate is a kidney irritant. Sufferers from kidney diseases who take Warner's Safe Remedy will shorten their lives (Jour. A. M. A., Dec. 19, 1914, p. 2246).

CYPRIDOL CAPSULES.—Cypridol capsules, sold by E. Fougera & Co., New York, are stated to contain mercuric iodide dissolved in oil. The Council on Pharmacy and Chemistry refused recognition to Cypridol capsules because they were sold under unwarranted therapeutic claims and because they were marketed in a way to appeal to the public. If the capsules are once prescribed the directions on the bottle and the full instructions for the treatment of syphilis which accompanies the bottle is likely to lead the patient to attempt to treat his malady on his own accord and thus probably forfeit his chances of a cure. Physicians who want to use a solution of mercuric iodide in oil, should have their pharmacist prepare it for them (Jour. A. M. A., Dec. 19, 1914, p. 2247).

INTESTINAL ANTISEPTIC W-A.—The Abbott Alkaloidal Co., advertises Intestinal Antiseptic W-A as ". . . A scientifically blended and physiologically adjusted mixture, of the pure sulphocarbolates of calcium, sodium and zinc, grs. 5, with bismuth subsalicylate, gr. 1-4 and aromatics." The Council on Pharmacy and Chemistry refused recognition to this proprietary because the formula does not indicate the proportionate amounts of the several sulphocarbolates, because the name is therapeutically suggestive and an invitation for the use of the preparation by the public and because exaggerated therapeutic claims are made for it. The claims which are made are most extreme; they contrast sharply with the low esteem in which the phenolsulphonates (sulphocarbolates) are generally held. It does not appear that the claims have been substantiated by proper evidence (Jour. A. M. A., Dec. 19, 1914, p. 2247).

KELLER'S TUBERCULIN TEST PLATE.—This appears to be an attempt to exploit the Moro tuberculin ointment. The test does not discriminate between active and latent tuberculosis. As most adult persons have experienced tubercular infection at some time in life, a large majority of persons will respond positively to the test (Jour. A. M. A., Dec. 19, 1914, p. 2250).

SOCIETY REPORT

BUTTE COUNTY.

The regular meeting of Butte County Medical Society was held at the offices of Dr. P. L. Hamilton, December 8th, at 8:30 p. m. The following members were present: Drs. Edward E. Baumeister, D. H. Moulton, P. L. Hamilton, C. C. Landis. M. P. Stansbury, Ella F. Gatchell; also Dr. Chiapella and Nellie Allen as guests. The annual election of officers was held: Dr. M. P. Stansbury, president; Dr. C. C. Landis, vice-president; Dr. Edward E. Baumeister, secretary-treasurer; Dr. D. H. Moulton, board of censors.

Dr. P. L. Hamilton presented a clinical case illustrating section of posterior nerve roots. After adjournment refreshments were served and a social time enjoyed. ELLA F. GATCHELL, Secretary.

CALIFORNIA PEDIATRIC SOCIETY, NORTHERN BRANCH.

The second meeting of the California Pediatric Society, Northern Branch, will be held on Thursday evening, February 18th, in the County Medical Library at 8:15. The program will be as follows:

1. Studies in Spinal Fluid of Tuberculous Meningitis. Alfred Edward Meyers; 20 minutes.
2. Vital Statistics and Birth Registration. Allen F. Gillihan; 10 minutes.
3. Report of a Case of Tumor of the Spinal Cord in a Child of Eighteen Months—with autopsy. Rachel L. Ash; 15 minutes.
4. Diagnosis, Treatment and Management of Diphtheria. Arthur A. O'Neill; 20 minutes.
5. Preliminary Report of the Schick Diphtheria Toxin Reaction. Harry Emerson Foster and William Palmer Lucas.

It is hoped that anyone interested in child welfare problems will come to this meeting and join the society. We will welcome all who are really interested in any phase of child welfare work. WILLIAM PALMER LUCAS, Secretary.

MONTEREY COUNTY.

At a meeting of the Monterey County Medical Society, held at the Hotel Abbott, Dec. 18, 1914, the following officers were elected for the ensuing year. Dr. H. N. Yates, Pacific Grove, President; Dr. J. A. Beck, Salinas, Vice-President; Dr. W. L. Teaby, Monterey, Secretary; Dr. John Parker, Sa-

linas, Treasurer; Dr. W. A. Lillie, Monterey, Censor; Dr. Garth Parker, Salinas, Delegate; Dr. W. A. Lillie, Alternate.

HEZEDIAH CRABTREE, Secretary.

RIVERSIDE COUNTY.

At the regular monthly meeting of the Riverside County Medical Society, held in Beaumont, on December 14th, the following officers were elected for the year 1915: President, Dr. E. H. Wood, of Arlington; Vice-President, Dr. F. D. West, Beaumont; Secretary and Treasurer, Dr. George E. Tucker; Delegates to State Medical Society—Dr. H. R. Martin, Dr. John C. King; Alternates to State Medical Society—Dr. G. E. Tucker, Dr. C. S. Dickson.

GEORGE E. TUCKER, Secretary.

SAN FRANCISCO POLYCLINIC SOCIETY.

The San Francisco Polyclinic Society held its regular meeting December 12, 1914, at the annual dinner, St. Germain's Restaurant. The usual scientific program was dispensed with. Election of officers for the ensuing year took place. The following officers were elected: President, Dr. A. J. Zobel; vice-president, Dr. W. E. Stevens; secretary-treasurer, Dr. Harry P. Robarts. Among the many speakers the following responded to toasts: Drs. H. Horn, M. Regensburger, H. L. Wagner, M. Krotoszyner, F. B. Carpenter, W. E. Stevens, H. A. L. Ryfkogel, McPheters, Taubles, Conlan, and S. Blum. Dr. Zobel acted as toastmaster.

HARRY P. ROBARTS, Secretary.

SANTA BARBARA COUNTY.

The Santa Barbara County Medical Society met in regular monthly session at the Arlington Hotel on Monday, Dec. 14, 1914. It was called to order by the President, Dr. William H. Flint, at about 8:15 p. m. The Secretary, Dr. William T. Barry, at his desk. There were present: Drs. Bakewell, Barry, R. Brown, Campbell, Cunnane, Flint, T. A. Stoddard, Wells, Wright, and visitor, Dr. C. S. Stevens of Santa Barbara, a total of nine members and one visitor. Clinical cases being the first in order, the following gentlemen reported: Dr. Bakewell, an interesting and important case of basal fracture; slow recovery without operation. Dr. Campbell related two cases of mania a pótu, one of which proved fatal. Dr. Barry gave his experience in a recent case of profound and alarming shock (as contrasted with syncope) attending upon a very trivial operation. Dr. T. A. Stoddard, appendicitis complicating pregnancy, operation, recovery.

Following these clinical case reports came the paper or discussion of the evening, "Management of Pott's Fracture," by Dr. Rexwald Brown. The main points dwelt upon by the doctor were the clinical evidences of a true Pott's fracture, eversion of foot, etc. He claimed that many cases diagnosed as Pott's were not really so. Considerable discussion followed. The Chair then called for unfinished business, which was duly adjusted. There was also discussed the scientific advisability of securing the presence of specialists in different lines of practice at the meetings. Adjourned.

WILLIAM T. BARRY, Secretary.

SANTA CLARA COUNTY.

At the annual meeting of the Santa Clara County Medical Society, held on December 16th, the following officers were elected for the year 1915:

President, Dr. Charles M. Richards, San Jose; First Vice-President, Dr. James Blair, San Jose; Second Vice-President, Dr. T. M. Williams, Palo Alto; Third Vice-President, Dr. John Clark, Gilroy; Treasurer, Dr. H. J. B. Wright, San Jose; Secretary, Dr. Charles B. Hare, San Jose; Delegates to the State Convention—Dr. Charles B. Hare (one year), Dr. N. H. Bullock (two years), Dr. A. J. Bacher (two years).

CHAS. B. HARE, Secretary.

VENTURA COUNTY.

The Ventura County Medical Society held a meeting on December 29, 1914, and elected the following officers for 1915: President, H. B. Osborn, Fillmore; vice-president, Will J. Lewis, Ventura; secretary-treasurer, R. W. Homer, Ventura; delegate to state meeting, W. R. Livingston, Oxnard; alternate to state meeting, B. E. Merrill, Santa Paula.

H. B. OSBORN, Secretary.

NEVADA STATE MEDICAL ASSOCIATION.

M. A. ROBISON, SECRETARY-TREASURER, RENO.

Officers and Committees for 1915:

President, P. J. Mangan, Winnemucca; Vice-President, J. C. Ferrell, Fallon; Second Vice-President, Arthur J. Hood, Elko; Secretary-Treasurer, M. A. Robison, Reno; Trustees—1 year, C. E. Secor, Tuscarora; 2 years, C. W. West, Elko; 3 years, R. St. Clair, Reno.

Committees:

Membership—P. J. Mangan, J. C. Ferrell, M. A. Robison.

Judicial—J. E. Pickard, F. M. Nesmith, C. E. Earley.

Scientific Work and Program—B. F. Cunningham, R. St. Clair, W. L. Samuels.

Necrology—H. Ostroff, F. M. Wast, E. T. Krebs.

Entertainment—W. L. Samuels, J. A. Asher, R. K. Hartzell.

Delegate to A. M. A.—M. R. Walker; Alternate, A. P. Lewis.

Public Health—M. R. Walker, F. F. Owens, J. L. Robinson.

State Organizer—H. A. Brown.

Council—A. C. Olmstead, J. A. Russell, D. A. Turner, C. E. Bulette, G. M. Gardner, F. C. Pache, A. McIntyre, G. L. Belanger, C. E. Swezey.

At a called meeting of the Washoe County, Nevada, Medical Society December 28th, the Legislative Committee was asked to continue the investigations relating to Medical Defense, and to have a complete report ready for the next annual meeting of the State Association.

Dr. J. T. Reese, of McDermit, sustained a fracture of the wrist recently while cranking his automobile. He is at Winnemucca for treatment.

Dr. W. D. Row, of Sparks, is relieving Dr. Coates, of Loyalton, Calif.

STATE HEALTH CREED.

Does not this new degree of "graduate in public health," announced by the University of California, come dangerously near an official establishment of religion? For these students are going to be instructed in the scientific school of sanitation, and they are going out to impose that sect on the public administration of communities. Have we any more right to establish the scientific health school over the unscientific than we have to establish a rational religious sect over the irrational ones? Not if the two cases are analogous—which is what most of the discussion assumes.

For instance, these students will be taught, and

will afterward put into practice, the dogma that malaria is transmitted by mosquitoes, and they will set communities to work draining swamps, screening cisterns and kerosining pools, to stop the malaria. It will stop the malaria all right—but how about the creeds of other sects, which declare that malaria is caused by "wrong thoughts," or twisted spines, or is a variant of the itch? Shall we establish one of these sects above the other, merely because it happens to be founded on scientific knowledge? These students will fight tuberculosis with fresh air and nutritious food. The particular sects which object to quinine for malaria mostly agree with this treatment of tuberculosis. But there are other very numerous groups which exclude fresh air in tuberculosis cases, for fear of "catching cold," and put their faith in whisky. And there are numerous groups which object to nutritious food—one sect bars meat and another all cooked food, and another prescribes starvation for all ills, including hunger. Shall these creeds be denied that public recognition which is granted to the rival faith of science?

The scourge of smallpox has been banished from the civilized world by vaccination. Typhoid has been banished from armies by protective inoculation; the ravages of diphtheria have been minimized by antitoxin; and hog cholera is being banished by immunizing serum. But there are sects which attribute the cholera to the imperfect apprehension of divine truth by the mortal mind of the hog, and would cure it by reading to the hog spiritual admonition out of a book. There are those who assert that there is no such thing as diphtheria; it is merely a name for a group of unrelated symptoms, one of which can best be treated by spilling a drop of belladonna into Lake Michigan and then administering a spoonful of Chicago water every hour. And why combat typhoid by patrolling watersheds, excluding flies, and inoculating soldiers, when the real cause of the outbreak of cholera in camps is the sudden and simultaneous displacement of the fourth lumbar vertebra of all the soldiers?

All these things are believed, preached and practiced. And yet, in the mere name of experience and science, it is proposd to establish as a public institution, another sect which has nothing in its favor except that it is true. Is not this an establishment of religion, forbidden by our fundamental law and by the genius of our institutions?

If the common analogy holds good, it certainly is. If there are sects, creeds, or schools in the doctrine and practice of health and disease, analogous to the sects which we mutually tolerate in matters of religion, then this new University degree is an infringement of liberty of faith. It is the establishment of science as the orthodox dogma of the state—that is, if the analogy holds.

And if it does not hold (which it doesn't)—then what is the meaning of all the rest of the arguments for "medical freedom," every one of which is based on just this false analogy, and on nothing else?—Fresno Republican.

THE MEDICAL ASSOCIATION OF THE ISTHMIAN CANAL ZONE.

It is the desire of the Medical Association of the Isthmian Canal Zone to be represented at the Panama-Pacific Exposition, to be held in San Francisco during the year 1915.

It was decided at the November meeting of the Society to hold an extraordinary session at the Exposition some time during the Medical Period, which begins June 13th and ends July 3rd. The most desirable time appears to be the week beginning June 14, 1915, as this date is near the meeting to be held by the American Society of Tropical Medicine, and the meeting of the American Medical Association.

It seems appropriate that our Society should be represented, and it is therefore earnestly requested that all former and present members will endeavor to assemble at San Francisco during that week, and be prepared to support those in charge of the session.

Former members who now live near San Francisco will be asked to take the lead in perfecting the plan and as soon as the temporary chairman can be appointed, the members are requested to get in early communication with him and express their intentions in regard to attendance, and also offer any suggestions in regard to making the extraordinary session a success.

Due notice will be given as soon as the temporary chairman can be named. H. C. CLARK,
Secretary-Treasurer, Ancon, C. Z.

POISONOUS FLY DESTROYERS.

The December issue of the Journal of the Michigan State Medical Society calls attention editorially to the danger of using poisonous fly destroyers.

From July 1 to October 15, 1914, 45 cases of poisoning of young children were reported in the press of a few states and it is pointed out that the symptoms of arsenical poisoning and cholera infantum being very similar there are possibly many more cases of the kind. It might be well in view of this danger for physicians to eliminate the possibility of arsenical poisoning before diagnosing a case as cholera infantum. A few years ago there was considerable agitation against the use of phosphorous matches, partly because of some children being poisoned by eating or sucking the heads of the matches. There are doubtless many more cases of poisoning from the poisonous fly destroyers. Phosphorous matches have been abolished, so should be poisonous fly destroyers.

It seems this danger has already been recognized by the authorities in far away South Africa and the sale has been forbidden, except by licensed chemists, of certain arsenical fly destroyers, more particularly the tin boxes which have a wick or wicks through which the poisoned water is drawn. The fact that sugar is added to draw the flies makes these boxes especially dangerous to young children; furthermore, all these poisonous fly destroyers are usually placed on the window sill and children as well as flies are attracted to the windows and the poisons are thus within their reach.

Both the blotting paper impregnated with arsenic (which is put in an open saucer with water and sugar), or the tin boxes with wicks to draw the poisoned water to the surface, are extensively used, and there is probably no poison so commonly and unnecessarily used where it is perforce within the reach of young children as these various arsenical fly destroyers. In country homes where it often takes some hours to get a physician, and even in our cities among the foreign born, where the parents are, as is well known, slow to call the services of a physician for childish ailments, the danger is especially great. There are as effective and more sanitary ways of killing flies. Poisonous fly destroyers are an unnecessary evil and should be relegated to the past like the phosphorous match.

SERUM FOR INFLUENZAL MENINGITIS.

A fresh supply of the serum for influenzal meningitis, from the Rockefeller Institute, is at the Lane Hospital. As the supply is very limited, a confirmed diagnosis by bacterial examination is necessary before it may be used.

DEATHS.

Mattner, Ernest H., San Francisco.
Shaw, Frederick E., Sacramento.
Lasher, Geo. W., Los Angeles, Cal.
Kugeler, H. B. A., San Francisco.
Wadsworth, C. C., San Francisco.
Stallings, F. L., Lindsay, Cal.
Robb, Lewis Griggs, San Francisco.
Manson, Peter, Fresno.